INVESTIGATION INTO
APPARENT DISCREPANCIES IN WELD RECORDS
RELATIVE TO THE MIDLAND PROJECT

Sept. 27, 1982

The condition that was investigated to determine if it failed to comply with the Atomic Energy Act of 1954 as amended, or that the components supplied contained defects which could create a "substantial safety hazard", was due to the apparent discrepancy between "working" (photocopy) copies of Shop Travelers containing welder identifications and the official Quality Record Copies (yellow) of these Travelers which contained conflicting welder identifications.

Overall, the Travelers with discrepancies were found to have been used to fabricate HVAC components to be installed at all three currently active contract facilities, but were limited to work performed at the Zack Company facilities at Cicero, Illinois and Chicago, Illinois. Information in this report pertains to MIDLAND PROJECT only.

The Travelers in question are part of a system utilized by the Zack Company to record as-built, as-welded conditions and inspection verifications for fabricated HVAC components. Certain "working" (photocopy) copies of the official Travelers utilized by production tradesmen contain the initials/numbers of various personnel who apparently performed some work function on the component(s) listed on an individual Traveler. Relevant information such as welder identification was then transferred to the official Record Copy (yellow).

These "working" copies were reviewed against the official copy and all discrepancies between the two were noted and evalutated to determine if they would create a substantial safety hazard.

The investigation had two (2) specific goals:

A. To determine if the inconsistancies between the "working" copies and the original Travelers could result in a condition that would create a substantial safety hazard.

B. To determine if the individual(s) involved were trying to remove evidence of a deviation with malice aforethought.

The following action plan and work assignments were directed at achieving goal "A" above. Zack Company Management in conjunction with legal advisors addressed the resolution of goal "B" above.

To determine if the inconsistancies resulted in a substantial safety hazard, they were collated, reviewed, catagorized and evaluated.

"Working"Copies were collated by:
1. Project
2. Safety related/Non-Safety related
3. By the type of information contained on the "working" copy.

This report deals only with Travelers identified as safety related.

The following types of information were obtained and used to provide background and to substantiate the validity of the records.
A. Payroll records to set time frames for welders employment at Zack.
B. Load Shipment Dates to support work and inspection dates.
C. Welder hire dates, qualification dates and termination dates.
D. Support personnel hire, and termination dates (i.e. cleaners, inspectors, etc.)
E. Weld wire issue dates for Plant 2 (Kilbourn Avenue).

Using the above information, the review process was started and progressed as described on page 4.

The first review identified all "working" copies that contained no fabrication or identification information and, therefore, could not disagree with the Record Copy. These were put in numerical order, cataloged and removed from further consideration.

The second review compared the "working" copies to the Record Copies (which had been removed from file for this comparison) for the following:

A. Unqualified welders indicated on the working copy.
B. Welders listed on the "working" copy that did not appear on the Record Copy.
C. Any personnel identifications on the "working" copy (i.e. initials or I.D. numbers) not immediately identifiable.
D. "Working" copy in total agreement with Record Copy.
E. To note any other variations or discrepancies.

The above information was catagorized as stated below.

CATEGORY 1 - (Indicated by "Yes" on tally sheets) - "working" copy and Record Copy agree and welder(s) qualified. (Item D above).

CATEGORY 2 - (Indicated by "Yes X" on tally sheets) - "working" copy and Record Copy differ with all welders involved being qualified. (Item B above).

CATEGORY 2 - (Indicated by "No" on tally sheets) - "working" copy and Record Copy differ and unable at this stage to establish if all welders are qualified. (Items A and C above).

At this point in time, Catagories 1 and 2 were eliminated from further review as it was determined that no serious problem existed as long as all welders identified were qualified.

Category 3 was further broken down as follows.

A. Date discrepancies exist for welder qualification because of inability to establish actual work or inspection dates.
B. No weld procedure was listed on "working" or Record Copy.
C. Two weld procedures were listed on either copy, but welders listed were qualified to only one or to neither.
D. Welder apparently not qualified or unidentifiable initials on either copy.

E. Welder not qualified on best available indication of work date, but qualified at a later date.
   1. Qualification not prior to Traveler issue date, no work/inspection date available.
   2. Qualification not prior to actual work/inspection date.

F. Miscellaneous variations or discrepancies.

To provide the most expeditious handling of this volume of paperwork through the review cycle to this point while maintaining the level of integrity required, the Zack Company brought in five (5) Engineers from one of our field operations to assist in the review.

Internal departments provided the following support.

DRAFTING DEPT: Located and matched record copies with "working" copies.

ENGINEERS: Reviewed "working" copies vs. Record Copies, noted and recorded and categorized differences.

DOCUMENT CONTROL: Provided control and security for all relevant documents and assisted in logging/filing operations.

The above group operated under Mr. Tom DeLafosse, Project Coordinator who was assigned the Lead Function.

ACCOUNTING DEPT: Provided payroll and employment records to validate time frames for individual welders' work, and for various other support personnel.

Q.A. DEPT: Developed welder and cleaner/inspector matrixes and functioned as part of the review team.

The above group operated under Mr. Ray Basiaga, Lead Q.A. Engineer who was assigned the Lead Function.

CORPORATE MANAGEMENT provided coordination, additional required management, individuals relevant to the investigation for interview, review and approval of all phases of the review and support to all individuals involved throughout the effort.

All relevant personnel were interviewed during the various phases of the investigation and said interviews were documented when deemed appropriate. Information obtained in this form that was based facts, not opinion, and that could be substantiated, was used in the evaluation. All other information was simply recorded and included for information only.

The final evaluation of the Travelers in Category Three (3) ("No") was conducted by Mr. Dave Calkins, Manager of Nuclear Construction, Mr. Tom DeLafosse, Project Coordinator and Mr. Ray Basiaga, Lead Quality Assurance Engineer.

The goal of the final evaluation was to determine if the inconsistancies noted on all copies of the remaining Category Three (3) ("No") Travelers raised any questions as to the quality of the workmanship.
The final evaluation utilized the finalized welder qualification matrix containing all information available from Pittsburgh Testing Laboratories in addition to information on file at the Zack Company. This matrix included welder name, I.D. No., hire date, termination date, and qualification date for each welding process.

Also utilized was a listing of shop cleaning and inspection personnel. This list was compiled from personnel records and verified by plant supervision. This list included name, I.D. No., hire date, termination date and position.

The following shop practices, confirmed by interview, were considered credible and accepted as valid for the purpose of the final review.

1. Shop Personnel often marked dimensional, operational or identification information on the "working" copy of the Traveler. This information was not required to be on the Record Copy of the Traveler by either procedure or regulation.

2. Cleaning Personnel generally circled their initials or I.D. No.
3. Layout or Cutting Personnel generally initialed their work within the cut list portion of the Traveler.
4. Inspection Personnel identified by their initials, symbol or I.D. No., were considered as acceptable as none have ever worked for the Zack Company as welders.
5. Welders normally initialed beside the work they performed and indicated completion with the word "out".
6. Sheet Metal workers from various locals are generally not qualified to AWS Standards. The Zack Company often had these personnel working as helpers with Zack Company certified AWS qualified welders until they became familiar with AWS Standards and Zack procedures. Their initials on the "working" copy do not indicate that they welded, but served as a means of tracking their training. However, for purposes of this report, it has been assumed that they did weld and were evaluated accordingly.

The results of the comparison between the "working" copies and Record Copies of Shop Travelers are included as attachments. The attachments are collated in progression from the earliest results to the final results.

In conclusion, a complete and thorough investigation has been conducted by the Zack Company of the information contained on the "working" copies and Record Copies of Shop Travelers.

This investigation has revealed that in some cases there is additional and/or different information on the "working" copies than on the Record Copies. There is, however, no basis for establishing that the "working" copy is complete and correct or that the Record Copy is in error. The Zack Company has taken the position that the "working" copies will be attached to the Record Copy and retained as a part of the permanent record thereby accounting for all personnel with any possible relevance to the work. It is also the position of the Zack Company that any individual identified by initials or I.D. No. on either copy, who ever worked as a welder during his term of

employment with the Zack Company, was to be considered a welder at the time his identification was put on the Traveler.

Accepting this as the worst possible condition, the Zack Company has been able to account for all persons identified on the Travelers in question. On over 96% of the Travelers, all individuals identified as welders were qualified at the time the work was performed. For the remaining Travelers, all welders with the exception of Mr. Ken Gibson, were qualified at a later date. Of these fourteen (14) welders, six (6) were qualified within thirty (30) days, the remaining eight (8) within six (6) months.

It was upon assurance that the welders were qualified in accordance with applicable codes, regulations, and/or contractual requirements and that all welds were inspected to respective criteria that the determination was made that no "Defect", as defined in 10CFR21 Para. 21.3D existed, and it was at this time that our report to the U.S.N.R.C. was withdrawn.

With regard to Mr. Ken Gibson, the Zack Company has recognized that it never certified Mr. Gibson in accordance with the requirements of the AWS Code. However, this in no way implies that Mr. Gibson was not a qualified welder or deminishes his ability to produce quality welds in accordance with Zack Company approved weld procedures.

Mr. Gibson has been involved in and been a qualified welder working for various mechanical contractors over the past sixteen (16) years. He has been qualified with the Zack Company at the Clinton Nuclear Project for the past twenty (20) months. Therefore, while the Zack Company may have been remiss in not having put Mr. Gibson through the certification process, it should be noted that this in no way detracts from his previous qualifications and ability to produce sound, quality welds.

Mr. Gibson only worked in the Zack Company, Chicago facility, for a period of four (4) months between July, 1978 and November, 1978 and was responsible for welds on one (1) Traveler for the Midland Project. This discrepancy with respect to Mr. Gibson's qualifications and the Midland Traveler, is an internal Zack Company procedural violation only. Mr. Gibson's welds were inspected and accepted to the same standards all other welders are required to meet.

The one Traveler (F6654) welded by Mr. Gibson is still in existance at the Midland Project for one transition piece. This piece will be reinspected and replaced by the Zack Company if found unacceptable.

The following events were considered relevant in either understanding the reasons the inconsistancies could have occurred or in judging that the inconsistancies did not indicate a significant problem:

The Zack Company went from a single plant operation to a two-plant operation at the opening of its Chicago facility on Kilbourn Avenue. The plant was purchased in February, 1979 and after initial refurbishment it was made operational in May, 1979 and was operated until November 1981. The transition from a single plant operation to a two-plant operation was coupled with the build-up in personnel could account for a part of the delay in qualifying a few welders in a timely manner.

Various inspections by both Zack Company personnel and client personnel (see attachments) have re-established the quality of the welds irrespective of the documented qualifications of the welders.

In any event, I believe that the Zack Company has proved that a serious systemic problem does not, nor did not exist. A distribution of the dates of occurrence of discrepant Travelers is attached for your information.

Please review this report and its attachments to determine if a 50.55.E Report is required on your part.

Any and all questions concerning this matter should be directed to the Zack Company Quality Assurance Department.

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS Pg 20
F10482	39	12/3/79	1/10/80	OK	YES	
F10429	12	12/3/79	1/10/80	OK	YES	
F10428	21	12/3/79	1/10/80	OK	YES	
F10285	6	12/3/79	1/10/80	OK	YES	
F10269	23	12/3/79	1/10/80	OK	YES	
F10286	5	12/3/79	1/10/80	OK	YES	
F10132	21	12/3/79	1/10/80	OK	YES	
F10268	34,30	12/3/79	1/10/80	30, 1/22/80	NO /	
F10264	26	12/3/79	1/10/80	OK	YES	
F10265	34	12/3/79	1/10/80	OK	YES	
F10261	48	12/3/79	1/10/80	OK	YES	
F10130	48	12/3/79	1/10/80	OK	YES	
F10128	5,6	12/3/79	1/10/80	OK	YES X	
F10125	34,6	12/3/79	1/10/80	OK	YES X	
F10124	21	12/3/79	1/10/80	OK	YES	
P1203	34	9/18/79	1/9/80	OK	YES	
P1201	34,54	9/18/79	1/9/80	54 1/22/80	NO /	
P1185	26	10/2/79	1/9/80	OK	YES	
F8766	34	10/15/79	1/9/80	OK	YES	
F6456	48,54	8/10/79	1/9/80	54 1/22/80	NO /	
F8767	34,26 or 52	10/15/79	1/9/80	52 3/15/80	NO ? /	
F8768	26	10/15/79	1/9/80	OK	YES	
F8769	26	10/15/79	1/9/80	OK	YES	
F8798	39,26 or 52	10/15/79	1/9/80	52 3/15/80	NO ? /	
F8797	12	10/15/79	1/9/80	OK	YES	
F8799	39	10/15/79	1/9/80	OK	YES	
F8860	39	10/10/79	1/9/80	OK	YES	
F8816	34,54	10/10/79	1/9/80	54 1/22/80	NO /	
F8810	5	10/10/79	1/9/80	OK	YES	
F8809	5	10/10/79	1/9/80	OK	YES	
	12					

MIDLAND

YES - 23
YES X - 2
NO - 6

CLASS I

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
P3611	23,12	3/81	4/28/81	OK	YES	
P3608	21,12,34	3/81	4/28.81	OK	YES	
P3606	23,21,63	3/81	4/28/81	OK	YES	
P3605	20,63,21	3/81	4/27/81	OK	YES	
P3604	12,23	3/81	4/29/81	OK	YES	
P3601	34,12	3/81	4/27/81	OK	YES	
F12055	12	3/81	4/21/81	OK	YES	
F2853	63,20	1/81	2/19/81	OK	YES	
F2523	21,20	1/81	4/21/81	OK	YES	
F2226	21,23	4/81	4/21/81	OK	YES	
F2225	21,34	4/81	4/21/81	OK	YES	
F2222	21,23	4/81	4/12/81	OK	YES	
F2082	12,21,63	3/81	4/17/81	OK	YES	
F2050	12,21	4/81	4/21/81	OK	YES	
F2049	12,23	4/81	4/21/81	OK	YES	
F2048	21,12,34	4/81	4/21/81	OK	YES	
F2047	63,21,12	4/81	4/17/81	OK	YES	
F2033	23,34	3/81	4/17/81	OK	YES	
F2030	34,63	3/81	4/17/81	OK	YES	
F2029	34,12	3/81	4/17/81	OK	YES	
F10487	48	12/3/79	1/10/80	OK	YES	
F10488	5	12/3/79	1/10/80	OK	YES	
F10484	6,54	12/3/79	1/10/80	54 - 1/22/80	NO /	
F10494	48	12/3/79	1/10/80	OK	YES	
F10493	5	12/3/79	1/10/80	OK	YES	
F10491	5	12/3/79	1/10/80	OK	YES	
F10489	34,26 or 52	12/3/79	1/10/80	52 3/15/80	NO? /	
F10490	6	12/3/79	1/10/80	OK	YES	
F10497	48	12/3/79	1/10/80	OK	YES	
F10480	39	12/3/79	1/10/80	OK	YES	
F10481	39	12/3/79	1/10/80	OK	YES	

MIDLAND

YES - 29
YES X - 0
NO - 2

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS Pg 22
P2224	21,63,5	4/81	4/21/81	OK	YES X	
F2116	23,21	4/81	5/7/81	OK	YES	
P3041	34,23	12/80	5/14/81	OK	YES	
P3035	23,12,21,20	12/80	5/8/81	OK	YES X	
P3040	34,63,23	12/80	5/1/81	OK	YES	
P3038	23,34,12	12/80	5/1/81	OK	YES	
P3037	21	12/80	5/5/81	OK	YES	
P3033	23	12/80	5/4/81	OK	YES	
P3036	12,21,23	12/80	5/1/81	OK	YES	
P3034	21,63,23	12/80	5/1/81	OK	YES X	
P3031	34,12	12/80	4/30/81	OK	YES X	
P3030	34	12/80	5/5/81	OK	YES	
P3029	34,23	12/80	5/6/81	OK	YES	
F13782	63	12/80	5/6/81	OK	YES	
F13789	34	12/80	5/5/81	OK	YES	
F13784	23	12/80	5/6/81	OK	YES	
F13788	63	12/80	5/5/81	OK	YES	
F13787	63	12/80	5/6/81	OK	YES	
F13786	21	12/80	5/4/81	OK	YES	
F13783	63	12/80	5/1/81	OK	YES	
F13781	63	12/80	5/5/81	OK	YES	
F13763	63	12/80	5/1/81	OK	YES	
F13762	12	12/80	5/6/81	OK	YES	
P3032	12,23,34,12	12/80	5/8/81	OK	YES	
F13761	12	12/80	5/4/81	OK	YES	
F13760	63	12/80	5/5/81	OK	YES	
P3609	12,21	3/30/81	5/4/81	OK	YES	
P3610	34,63	3/30/81	5/4/81	OK	YES	
P3614	21	4/81	4/21/81	OK	YES	
P3613	21,63	4/81	4/21/81	OK	YES	
P3612	34.63	4/81	4/29/81	OK	YES	

MIDLAND

YES - 27
YES X - 4
NO - 0

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F10048	48,26	11/16/79	1/15/80	OK	YES	
F10050	5	11/16/79	1/15/80	30, 1/22/80	NO /	
F10057	5,26	11/19/79	1/15/80	OK	YES	
F10058	5	11/19/79	1/15/80	OK	YES	
F10059	12	11/19/79	1/15/80	OK	YES	
F10063	34	11/19/79	1/15/80	OK	YES	
F10068	12	11/19/79	1/15/80	OK	YES	
F10008	23,26	11/15/79	1/15/80	OK	YES X	
F8861	48	10/10/79	1/15/80	OK	YES	
F8859	12	10/10/79	1/15/80	OK	YES	
F8812	34	10/10/79	1/15/80	OK	YES	
F10427	34	12/10/79	1/10/80	OK	YES	
F10486	48	12/3/79	1/10/80	OK	YES	
P1638	48	1/9/80	1/9/80	OK	YES	
P1490	34	12/10/79	1/9/80	OK	YES	
F10485	6,54	12/3/79	1/10/80	54, 1/22/80	NO /	
P1493	34	12/10/79	1/9/80	OK	YES	
F13299	26,12,5	10/80	10/28/80	OK	YES X	
F13297	12,34	10/80	10/28/80	OK	YES	
F13298	12,5	10/80	10/28/80	OK	YES	
F13296	12,34,21	10/80	10/27/80	OK	YES X	
F12495	12,54	10/80	10/28/80	OK	YES	
F12492	12,23	10/80	10/28/80	OK	YES	
F12490	12,26	2/80	10/28/80	OK	YES	
F12481	26,54,12	2/80	10/28/80	OK	YES X	
F12468	26,23,12	2/80	10/30/80	OK	YES X	
F12467	26,12	2/80	10/30/80	OK	YES X	
P3330	26,54	2/80	10/28/80	OK	YES	
P3327	54,68,12,26	2/80	10/28/80	OK	YES	
P3779	23,54	3/81	5/7/81	OK	YES	
F2224	21,63,5	4/81	4/21/81	OK	YES X	

MIDLAND

YES - 22
YES X - 7
NO - 2

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F13303	12,54	10/80	10/28/80	OK	YES	
F10131	21	11/26/79	1/15/80	OK	YES	
F10129	6,12	11/26/79	1/16/80	OK	YES X	
F10126	6	11/26/79	1/16/80	OK	YES	
F10127	34	11/26/79	1/16/80	OK	YES	
F10049	26	11/7/79	1/14/80	OK	YES	
F10051	34	11/16/79	1/15/80	OK	YES	
F10066	26,30	11/19/79	1/14/80	30, 1/22/80	NO /	
F10053	21	11/16/79	1/14/80	OK	YES	
F10067	21	11/19/79	1/14/80	OK	YES	
F10071	39	11/19/79	1/14/80	OK	YES	
F10013	12	11/15/79	1/14/80	OK	YES	
F8863	5	10/10/79	1/14/80	OK	YES	
F8733	21	10/2/79	1/15/80	OK	YES	
F8732	21	10/2/79	1/15/80	OK	YES	
F8802	34	10/15/79	1/15/80	OK	YES	
F8735	21	10/2/79	1/15/80	OK	YES	
P1513	21,6,12	11/16/79	1/15/80	OK	YES X	
P1522	23,48	11/15/79	1/15/80	OK	YES X	
P1514	21,30	11/16/79	1/15/80	30, 1/27/80	NO /	
P1512	34	11/19/79	1/15/80	OK	YES	
P1523	26,48,DL	11/15/79	1/15/80	DL?	NO? /	
P1511	34,54,5	11/19/79	1/15/80	54, 1/22/80	NO /	
P1510	39 WI GS	11/19/79	1/15/80	WI, GS	NO? /	
P1509	12	11/19/79	1/15/80	OK	YES	
P1113	21	8/10/79	1/15/80	OK	YES	
P10262	34,54	12/10/79	1/15/80	54, 1/22/80	NO /	
F10266	26	12/10/79	1/15/80	OK	YES	
F10260	34	12/10/79	1/15/80	OK	YES	
F10009	34,26	11/15/79	1/15/80	OK	YES X	
-----	--	11/15/79	1/15/80		YES	

MIDLAND

YES - 21
YES X - 4
NO - 6

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F12256	21,12,23	2/80	12/17/80	OK	YES	
F12255	12	2/80	12/17/80	OK	YES	
F10656	23	2/80	10/31/80	OK	YES	
F2335	26	2/80	1/6/81	OK	YES	
F2319	23,5	12/80	1/6/81	OK	YES	
F2318	23,12,21	12/80	1/6/81	OK	YES X	
P3393	23	11/80	16/81	OK	YES	
P3392	23,26	11/80	1/6/81	OK	YES	
P3391	26,5	11/80	1/6/81	OK	YES	
P3388	23,26	11/80	1/6/81	OK	YES	
P3389	23	11/80	1/6/81	OK	YES	
P3386	23,26	11/80	1/6/81	OK	YES	
P3018	5	11/80	12/17/80	OK	YES	
P2990	26,23	11/80	12/2/80	OK	YES	
P2292	5,21	11/80	12/31/80	OK	YES	
P2989	5	11/80	12/17/80	OK	YES	
P2988	12/5	11/80	12/17/80	OK	YES	
P2986	5,26,34	11/80	12/3/80	OK	YES	
P2984	12,5	11/80	12/17/80	OK	YES	
P2977	26,5,34	11/80	12/2/80	OK	YES	
P2978	12,26	11/80	12/2/80	OK	YES	
P2976	23,34,54	11/80	12/2/80	OK	YES	
P2975	5,23,63,26	11/80	12/2/80	OK	YES	
P2974	5,63,26	11/80	12/2/80	OK	YES	
P2973	63,12,26	11/80	12/2/80	OK	YES	
P2972	12,63,34,26	11/80	12/2/80	OK	YES	
P2955	21,5	11/80	12/17/80	OK	YES	
F12501	21	2/80	10/27/80	OK	YES	
F12475	N/A	2/80	11/21/80	N/A	N/A	
F2333	5,34	11/80	12/17/80	OK	YES	
F13302	12,23	10/80	10/28/80		YES	

MIDLAND

YES - 29
YES X - 1
NO - 0

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS Pg 26
F13498	34,54	11/80	12/2/80	OK	YES	
F13488	34	11/80	12/2/80	OK	YES	
F13485	34,5	11/80	12/2/80	OK	YES	
F13487	12	11/80	12/1/80	OK	YES	
F13486	12,34	11/80	12/2/80	OK	YES	
F13484	26,23	11/80	12/2/80	OK	YES	
F13483	26,54	11/80	12/2/80	OK	YES	
F13482	26,63	11/80	12/2/80	OK	YES	
F13480	26,34,12	11/80	12/2/80	OK	YES	
F13304	21,12	10/80	12/15/80	OK	YES	
F13301	26,63	10/80	10/25/80	OK	YES	
F13239	12,34	10/80	12/1/80	OK	YES	
F13238	12,34	10/80	12/1/80	OK	YES	
F13100	12,21	10/80	12/1/80	OK	YES	
F12500	21,26	2/80	10/27/80	OK	YES	
F12491	21,12	2/80	12/15/80	OK	YES	
F12479	21,34	2/80	12/2/80	OK	YES	
F12476	21,63	2/80	12/2/80	OK	YES	
F12472	21,34	2/80	12/2/80	OK	YES	
F12469	34	2/80	12/13/80	OK	YES	
F12466	54,26,21	2/80	10/27/80	OK	YES	
F12454	5	2/80	1/5/81	OK	YES	
F12453	5	2/80	1/5/81	OK	YES	
F12260	21,12	2/80	12/17/80	OK	YES	
F12265	21	2/80	12/17/80	OK	YES	
F12262	21,12	2/80	12/17/80	OK	YES	
F12261	21,26	2/80	12/17/80	OK	YES	
F12263	21,12,26	2/80	12/17/80	OK	YES	
F12258	21,12,26	2/80	12/17/80	OK	YES	
F12259	21,12	2/80	12/17/80	OK	YES	
F12257	21,26	2/80	12/17/80	OK	YES	

MIDLAND

YES - 31
YES X - 0
NO - 0

CLASS I

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F12335	34	3/4/80	3/19/80	OK	YES	
F13245	23	2/12/80	3/14/80	OK	YES	
F13246	34,66	2/12/80	3/14/80	66?	NO? /	
F13247	34	2/12/80	3/14/80	OK	YES	
F13248	48	2/12/80	3/14/80	OK	YES	
F13249	5	2/12/80	3/14/80	OK	YES	
F13250	5	2/12/80	4/10/80	OK	YES	
F13251	21	2/12/80	3/13/80	OK	YES	
F13252	34	2/12/80	3/13/80	OK	YES	
F13253	34	2/12/80	4/10/80	OK	YES	
F13254	5,64	2/12/80	3/14/80	64 3/25/80	NO /	
F13255	23	2/12/80	3/14/80	OK	YES	
F13256	23	2/12/80	4/10/80	OK	YES	
F13258	54	2/12/80	3/14/80	OK	YES	
F13257	54	2/12/80	3/14/80	OK	YES	
F13259	21	2/12/80	3/14/80	OK	YES	
F13261	23,54	2/12/80	3/14/80	OK	YES X	
F13260	34	2/12/80	3/14/80	OK	YES	
F11100	58	9/5/79	3/11/80	58?	NO? /	
F13262	54	2/12/80	3/13/80	OK	YES	
F11117	58	9/5/79	3/11/80	58?	NO? /	
F11104	34	9/5/79	3/11/80	OK	YES	
F2798	23,26	1/23/81	3/3/81	OK	YES	
P3453	34,54	1/26/81	3/9/81	OK	YES	
P3452	34,12	1/27/81	3/4/81	OK	YES	
F13571	5,23	11/80	12/17/80	OK	YES	
F13573	5154	11/80	12/17/80	OK	YES	
F13504	54	11/80	12/5/80	OK	YES	"YELLOW OUT" USED
F13503	12	11/80	12/5/80	OK	YES	
F13499	34	11/80	12/2/80	OK	YES	
F13497	34,54	11/80	12/2/80	OK	YES	

MIDLAND

YES - 26
YES X - 1
NO - 4

CLASS I

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F10468	26	12/3/79	2/18/80	OK	YES	
F10354	21	12/19/79	2/18/80	OK	YES	
F10357	12	12/20/79	2/18/80	OK	YES	
F10349	34	12/19/79	2/18/80	OK	YES	
F10353	21	2/18/80	2/18/80	OK	YES	
F10352	12	12/19/79	2/18/80	OK	YES	
F10351	26	12/19/79	2/18/80	OK	YES	
F10355	34	12/19/79	2/18/80	OK	YES	
F10348	34	12/19/79	2/18/80	OK	YES	
F10356	39	12/19/79	2/18/80	OK	YES	
F10473	6,48	12/3/79	1/14/80	OK	YES X	
F11050	26	9/4/79	3/11/80	26 3/25/80	NO /	
F11091	26	9/4/79	3/11/80	26 3/25/80	NO /	
F11118	58	9/4/79	3/11/80	58?	NO? /	
F10007	23	11/15/79	8/15/80	OK	YES	
F10011	6	11/15/79	8/15/80	OK	YES	
F11132	58	9/4/79	3/11/80	58?	NO? /	
F10012	39	11/15/79	8/15/80	OK	YES	
F10052	39	11/15/79	8/15/80	OK	YES	
F10055	6	11/15/79	8/15/80	OK	YES	
F10047	12	11/15/79	8/15/80	OK	YES	
F10054	5,39	11/15/79	8/15/80	OK	YES X	
F10015	30	11/15/79	8/15/80	OK	YES	
F10056	48	11/15/79	8/15/80	OK	YES	
F10060	12	11/19/79	8/15/80	OK	YES	
F10064	39	11/19/79	8/15/80	OK	YES	
F10065	39	11/19/79	8/15/80	OK	YES	
F10069	6	11/19/79	8/15/80	OK	YES	
F10070	48	11/19/79	8/15/80	OK	YES	
F10061	34	11/19/79	8/15/80	OK	YES	
[illegible]	[illegible]	11/19/79	8/15/80	OK	YES	

MIDLAND

YES - 25
YES X - 2
NO - 4

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F5627	21,12	5/8/79	8/6/79	OK	YES X	
F5626	21	4/17/79	8/6/79	OK	YES	
F5625	34,21	4/18/79	8/6/79	OK	YES X	
F5623	34	4/26/79	8/7/79	OK	YES	
F5624	34,21	4/26/79	8/6/79	OK	YES X	
F5052	12,21	6/24/79	8/6/79	OK	YES X	
F5628	21,34	4/17/79	8/7/79	OK	YES X	
F5629	12	5/8/79	8/6/79	OK	YES	
P2756	21,39,12	6/9/79	7/26/79	39 10/29/79	NO ✓	
F04407	12	3/5/79	6/5/79	OK	YES	
F04410	12	3/5/79	6/5/79	OK	YES	
F7405	12	2/12/79	6/5/79	OK	YES	
F04412	20,39	3/5/79	6/5/79	39 10/29/79	NO ✓	
F04411	20,39	3/5/79	6/5/79	39 10/29/79	NO ✓	
F04409	12	3/5/79	6/5/79	OK	YES	
F04408	20,39	3/5/79	6/5/79	39 10/29/79	NO ✓	
F04406	12	3/5/79	6/5/79	OK	YES	
F4405	12	3/5/79	6/5/79	OK	YES	
F4404	20,39	3/5/79	6/5/79	39 10/29/79	NO ✓	
F4277	21	3/5/79	6/5/79	OK	YES	
F11103	26	9/5/79	3/11/80	OK	YES	
F11102	58	9/5/79	3/11/80	58?	NO? ✓	
F9127	12	11/30/79	3/7/80	OK	YES	
F10470	21	11/27/79	2/18/80	OK	YES	
F10477	12	12/3/79	2/18/80	OK	YES	
F10476	12	12/3/79	2/18/80	OK	YES	
F10475	5	12/3/79	2/18/80	OK	YES	
F10472	23	12/3/79	2/18/80	OK	YES	
F10350	34	12/19/79	2/18/80	OK	YES	
F10478	26	12/3/79	2/18/80	OK	YES	
F10469	39	12/3/79	2/18/80	OK	YES	

MIDLAND

YES — -20
YES X - 5
NO - 6

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS Pg 30
F12136	12,21	2/80	2/10/81	OK	YES	
F12144	12,21	2/80	2/10/81	OK	YES	
F12142	12	2/80	2/10/81	OK	YES	
F12140	12	2/80	2/10/81	OK	YES	
F12138	12,21	2/80	2/10/81	OK	YES	
F12130	12,21	2/80	2/10/81	OK	YES	
F13132	12	2/80	2/10/81	OK	YES	
F12138	12,26	2/80	2/10/81	OK	YES	
F12126	21	2/80	2/10/81	OK	YES	
P3325	54,26,12	2/80	10/28/80	OK	YES	
P2971	34,21,26 24	11/80	12/3/80	24?	NO	WHO IS 24?
P2922	12,5,63,21	10/80	10/28/80	OK	YES	
F13694	26,5	12/80	1/5/81	OK	YES	
F13634	21,63	11/80	12/15/80	OK	YES	
F13633	21.63	11/80	12/15/80	OK	YES	
F13616	21,54	11/80	12/15/80	OK	YES	
F13615	12,54	11/80	12/15/80	OK	YES	
F13614	12.63	11/80	12/15/80	OK	YES	
F13613	12,5	11/80	12/15/80	OK	YES	
F13612	12,34	11/80	12/15/80	OK	YES	
F13605	26,54,21	11/80	1/6/81	OK	YES	
F13611	12,21,34	11/80	12/15/80	OK	YES	
F13610	23,5	11/80	1/6/81	OK	YES	
F13609	26,54	11/80	1/6/81	OK	YES	
F13604	23,54	11/80	1/6/81.	OK	YES	
F13481	26,21,	11/80	12/2/80	OK	YES	
F13603	26,12	11/80	1/6/81	OK	YES	
F13577	26,12	11/80	1/6/81	OK	YES X	
F13575	54	11/80	12/17/80	OK	YES	
F13576	5,54	11/80	12/17/80	OK	YES	
P5630	12,34	4/17/79	8/6/79	OK	YES X	

MIDLAND

YES - 28
YES X - 2
NO - 1

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
P3416	26,5	1/16/81	2/11/81	9/19/80	YES	
P3415	26	1/15/81	2/11/81	9/19/80	YES	
F2521	63,5	1/7/81	2/9/81	9/19/80	YES	
P503	12,48	10/79	11/8/79	OK	YES	
P502	12,48	10/79	11/8/79	OK	YES	
P1229	34	8/79	10/11/79	OK	YES	
F5405	34	5/79	11/5/79	OK	YES	
F9252	21	8/79	11/5/79	OK	YES	
F9260	34,6	8/79	11/2/79	6	NO /	6 NOT QUALIFIED TO P9CS
F9380	34	9/79	11/2/79	OK	YES	
F9381	12	9/79	11/1/79	OK	YES	
P1305	21,6	9/79	10/29/79	6	NO /	6 NOT QUALIFIED TO P9CS
P1308	12,48	9/79	10/30/79	48	NO /	48 QUALIFIED TO P9CS 4/3/80
P1350	34,5,21	9/79	10/30/79	OK	YES X	P5CS
F8430	34	8/79	10/24/79	OK	YES	
F11170	21	8/79	10/24/79	OK	YES	
F11171	21,26	8/79	10/24/79	26	NO /	26 QUALIFIED P5CS 10/29/79
F11176	21,6	8/79	10/24/79	6	NO /	6 QUALIFIED P5CS 10/29/79
F11180	12	8/79	10/24/79	OK	YES	
F11179	34,39	8/79	10/24/79	OK	YES X	
F11181	21	8/79	10/24/79	OK	YES	
F11182	34,39	8/79	10/24/79	OK	YES X	
F11192	12	8/79	10/22/79	OK	YES	
F11199	21	8/79	10/22/79	OK	YES	
F11205	34,26	8/79	10/24/79	26	NO /	26 QUALIFIED P5CS 10/29/79
F11208	34	8/79	10/22/79	OK	YES	
F11209	12,39	8/79	10/22/79	39	NO /	39 QUALIFIED P5CS
F2776	54	1/81	2/19/81	OK	YES	
F13716	21,63,5	12/80	1/23/81	OK	YES X	
P3397	63	12/80	2/9/81	OK	YES	
P3396	63	12/80	2/9/81	OK	YES	

MIDLAND

YES - 20
YES X - 4
NO - 7

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
P3829	63	7/10/81	8/12/81	OK WPS-1	YES	
P3828	63	7/10/81	8/11/81	CK WPS-1	YES	
P3791	63	7/1/81	8/11/81	OK WPS-1	YES	
P3790	63	7/1/81	8/11/81	OK WPS-1	YES	
P670	63	6/17/81	8/10/81	OK WPS-1	YES	
P669	9	6/17/81	8/10/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
P668	9	6/17/81	8/10/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
P648	63	6/10/81	8/10/81	OK WPS-1	YES	
P596	63	6/5/81	8/11/81	OK WPS-1	YES	
P593	63	6/10/81	8/10/81	OK WPS-1	YES	
F13747	34	12/10/80	5/29/81	OK WPS-1	YES	
F13739	23	12/10/80	5/28/81	OK WPS-1	YES	
F13738	12	12/10/82	5/29/81	OK WPS-1	YES	
F13737	63	12/10/80	5/28/81	OK WPS-1	YES	
F13736	34	12/10/80	5/28/81	OK WPS-1	YES	
F17066	21	8/26/81	9/22/81	OK WPS-1	YES	
F17073	34	8/26/81	9/14/81	OK WPS-1	YES	
F17074	54	8/26/81	9/25/81	OK WPS-1	YES	
F17075	21	8/26/81	9/24/81	OK WPS-1	YES	
F17076	21	8/26/81	9/24/81	OK WPS-1	YES	
F17123	52,21	8/31/81	9/21/81	OK WPS-1	YES	
F17124	21,52	8/31/81	9/21/81	OK WPS-1	YES	
F17125	52,21	8/1/81	9/21/81	OK WPS-1	YES	
F17402	21,63	8/13/81	9/4/81	OK WPS-1	YES	
F17424	21,63	8/14/81	9/4/81	OK WPS-1	YES	
F17067	34	8/26/81	9/16/81	OK WPS-1	YES	
F17425	63	8/17/81	9/29/81	OK WPS-1	YES	
F17071	63	8/26/81	9/15/81	OK WPS-1	YES	
F17070	9	8/26/81	9/15/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
F17437	9	8/17/81	9/29/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
F17430	63	8/17/81	9/29/81	OK WPS-1	YES	

MIDLAND

YES - 27
YES X - 4
NO - 0

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F17440	54	8/17/81	9/29/81	OK WPS-1	YES	
F17443	54	8/17/81	9/29/81	OK WPS-1	YES	
P548	52,9	8/31/81	9/21/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
P667	63	6/17/81	8/10/81	OK WPS-1	YES	
P3946	21	8/11/81	9/4/81	OK WPS-1	YES	
F17453	9	8/17/81	9/29/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
F17442	9	8/17/81	9/29/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
F17441	63	8/17/81	9/29/81	OK WPS-1	YES	
F15505	34	6/25/81	8/7/81	OK WPS-1	YES	
F15556	34	7/1/81	8/12/81	OK WPS 1	YES	
F15557	34	7/1/81	8/12/81	OK WPS-1	YES	
P3451	5,34	1/24/81	2/19/81	OK WPS-1	YES	
P3775	21	4/1/81	4/21/81	WPS-1 WPS-2	YES	WELDING PROCEDURE NOT CIRCLED ON TRAVELER
P2834	6	8/27/79	12/7/79	OK P5CS	YES	
F2143	34	4/17/81	5/29/81	OK WPS-1	YES	
F17115	9	9/1/81	10/8/81	WPS-1 WPS-2	YES ?	2 - #9's, UNABLE TO DISTINQUISH WHICH ONE
P3448	34,21	1/24/81	2/19/81	OK WPS-1	YES	
P3447	54	1/24/81	2/19/81	OK WPS-1	YES	
F17116	63	9/1/81	10/12/81	OK WPS-1	YES	
F13732	12	12/10/80	5/27/81	OK WPS-1	YES	
F13731	5	12/10/80	5/27/81	OK WPS-1	YES	
F13730	12	12/10/80	5/26/81	OK WPS-1	YES	
F2221	21,12	4/1/81	5/6/81	OK WPS-1	YES	
F2053	23,21	3/26/81	5/7/81	OK WPS-1	YES	
F1937	23	3/13/81	5/7/81	OK WPS-1	YES	
P3774	23	3/27/81	5/7/81	OK WPS-1	YES	
P1181	12,20	9/22/79	1/9/81	OK WPS-1	YES X	OUT ON COPY GP
P1668	34	12/21/79	12/24/80	OK WPS-1	YES	
P1186	34	9/14/79	12/23/80	OK WPS-1	YES	
1664	34	12/20/79	12/24/80	OK WPS-1	YES	
1653	34	12/18/79	12/23/80	OK WPS-1	YES	

MIDLAND

YES - 37
YES X - 4
NO - 0

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F8726	12,63,34	9/13/79	12/17/80	9/19/80 8/27/80	YES X	VANE WELDER 34 NOT TRANSFERRED
F8570	34	8/30/79	2/9/81	4/22/76	YES	
F8572	20,6	8/30/79	2/9/81	12/10/76 10/29/79	YES X	WELDER 6 ON COPY
F02636	26,12	1/16/81	2/11/81	9/19/80 3/31/81	NO ✓	MPS NOT CIRCLED, WELDER 12 NOT QUALIFIED FOR WPS-2, 26 QUALIFIY
						AFTER WORK DATE WPS-2
F02635	26,12	1/16/81	2/11/81	9/19/80 3/31/81	NO ✓	WPS NOT CIRCLED, WELDER 12 NOT QUALIFIED FOR WPS-2, 26 QUALIFY.
						AFTER WORK DATE WPS-2
F02633	23,12	1/16/81	2/11/81	9/19/80	YES	
F02632	23,12	1/16/81	2/11/81	9/19/80	NO ✓	WPS NOT CIRCLED, ID DATE DOES NOT MATCH WELDER 23, 12 NOT QUALIFIED
						FOR WPS-2
F02630	26,54	1/16/81	2/11/81	9/19/80 3/31/81	NO ✓	WPS NOT CIRCLED, WELDER 54 NOT QUALIFIED FOR WPS-2 WELDER 26
						QUALIFIED AFTER WORK DATE WPS-2
F02628	26,12	1/15/81	2/11/81	9/19/80	YES ?	WELDER 26 ON COPY (VANES) ?
F02626	26,34	1/15/81	2/11/81	9/19/80 8/27/80	YES	
F02624	23,54	1/15/81	2/11/81	9/19/80	YES	
F2663	26	1/17/81	2/11/81	9/19/80	YES	
F2662	26	1/16/81	2/11/81	9/19/80	YES	
F2657	23	1/17/81	2/11/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 23 NOT QUALIFIED FOR WPS-2
F2656	23	1/17/81	2/11/81	9/19/80	NO ✓	WELDER 26 ON COPY (VANE) ? WELDER NOT QUALIFIED FOR WPS-2
P3023	21,54	12/9/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 21 & 54 NOT QUALIFIED FOR WPS-2
F13765	21,34	12/10/80	1/23/81	9/19/80 8/27/80	YES	
F13764	21,34	12/10/80	1/23/81	9/19/80 8/27/80	NO	WPS NOT CIRCLED, WELDER 21 NOT QUALIFIED FOR WPS-2
F13746	21,23	12/10/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 21 & 23 NOT QUALIFIED FOR WPS-2
F13719	21,63	12/9/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 21 & 63 NOT QUALIFIED FOR WPS-2
F13718	21	12/9/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER NOT QUALIFIED FOR WPS-2
F13717	21,5	12/9/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 21 & 5 NOT QUALIFIED FOR WPS-2
P3432	23,5	1/17/81	2/11/81	9/19/80	YES	
P3432	23,5	1/17/81	2/11/81	9/19/80	YES	
P3418	26,5	1/16/81	2/11/81	9/19/80	YES	
P3420	26,54	1/17/81	2/11/81	9/19/80	YES	
P3417	26,5	1/16/81	2/11/81	9/19/80	YES	

MIDLAND

YES - 13
YES X - 2
NO - 12

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
P1652	34	12/18/79	12/23/80	OK WPS-1	YES	
P1651	34	12/18/79	12/22/80	OK WPS-1	YES	
P1297	20,21	9/13/79	1/12/81	OK WPS-1	YES	
P1224	34,20	8/30/79	1/5/81	OK WPS-1	YES ?	OUT ON COPY RM
P1180	21,20	9/22/79	1/9/81	OK WPS-1	YES	
P1202	5	9/4/79	2/9/81	OK WPS-1	YES	OUT ON COPY WJ
P1188	12,21, 34,63	9/14/79	12/17/80	OK WPS-1	YES	
F2359	34	12/30/80	2/10/81	8/27/80	YES	
P3402	63	12/30/80	2/10/81	9/19/80	YES	
P3406	34	12/30/80	2/10/81	8/27/80	NO	NO WELDER ID FOR FITTING
P3405	34	12/30/80	2/10/81	8/27/80	YES	
P3404	34,5	12/30/80	2/10/81	8/27/80 9/19/80	YES	
P3403	3454	12/30/80	2/10/81	8/27/80 9/19/80	YES	
F2326	21,63	12/30/80	1/23/81	9/19/80	YES	
F2320	21,34	12/2/80	1/23/81	9/19/80 8/27/80	NO	WPS NOT CIRCLED, WELDER 21 NOT QUALIFIED FOR WPS-2
F2301	34	12/3/80	2/9/81	8/27/80	NO	WPS NOT CIRCLED
F13720	21,63	12/9/80	1/23/81	9/19/80	NO	WPS NOT CIRCLED, WELDER 21,53 NOT QUALIFIED FOR WPS-2
F2683	34	1/28/81	2/27/81	8/27/80	YES	
F2682	63	1/27/81	2/27/81	8/19/80	YES	
F2681	34	1/28/81	2/27/81	8/27/80	YES	
F1980	20	3/5/81	5/19/81	9/19/80	YES	
F2680	63	1/27/81	2/27/81	9/19/80	YES	
F8934	12	9/22/79	2/9/81	2/3/80	YES	
F8933	5,20	9/22/79	1/9/81	9/19/80 10/29/79	YES	
F8932	21	9/22/79	2/9/81	2/3/80	YES	
F8931	54,20	9/22/79	1/9/81	12/10/76 1/22/80	YES	
F8930	12	9/22/79	2/9/81	2/3/80	YES	
F8929	34	9/22/79	2/9/81	4/22/76	YES	
F8911	34,21	9/22/79	12/24/80	OK	YES	
F8909	21	9/22/79	2/9/81	2/3/80	YES	

MIDLAND

YES -27
YES X - 0
NO - 4

CLASS I

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F6478	34	7/16/79	2/9/81	4/22/76	YES X	DI (?) CLEANER ?
F6476	34	7/16/79	2/9/81	4/22/76	YES X	DI (?) CLEANER ?
F6477	34	7/16/79	2/9/81	4/22/76	YES X	DI (?) CLEANER ?
F6473	21	7/16/79	2/9/81	2/3/80	YES	
F6474	21	7/16/79	2/9/81	2/3/80	YES	
F6471	20,52 (?)	7/16/79	2/9/81	12/10/76 3/15/80	YES X	GP ON COPY
F6469	20	7/16/79	2/9/81	12/10/76	YES	
F14851	12	6/16/81	8/7/81	9/19/80	NO /	WELDER 12 NOT QUALIFIED FOR WPS-2
F14821	34	6/11/81	8/7/81	8/27/80	YES	
F14820	34	6/11/81	8/10/81	8/27/80	YES	
F14819	34	6/11/81	8/10/81	8/27/80	NO /	RM (?) ON COPY
F14817	34	6/10/81	8/11/81	8/27/80	YES	
F14588	34	6/5/81	8/10/81	8/27/80	YES	
F14587	34	6/5/81	8/10/81	8/27/80	YES	
F14586	63	6/5/81	8/12/81	9/19/80	NO /	WELDER NOT QUALIFIED FOR WPS-2
F14582	34	6/11/81	8/12/81	8/27/80	YES	
F14182	63,6	5/8/1	8/12/81	12/31/80 9/19/80 5/14/81	YES	
F13735	5	12/10/81	5/28/81	OK WPS-1	YES	
F13734	63	12/10/80	5/27/81	OK WPS-1	YES	
F13733	23	12/10/80	5/28/81	OK WPS-1	YES	
F15555	34	7/2/81	8/12/81	OK WPS-1	YES	
F15554	34	7/2/81	8/12/81	OK WPS-1	YES	
F15504	34	6/25/81	8/12/81	OK WPS-1	YES	
F15503	34	6/25/81	8/10/81	OK WPS-1	YES	
F15502	34	6/25/81	8/7/81	OK WPS-1	YES	
F14864	34	6/17/81	8/11/81	OK WPS-1	YES	
F14866	34	6/17/81	8/11/81	OK WPS-1	YES	
F14865	34	6/17/81	8/7/81	OK WPS-1	YES	
F14863	63	6/17/81	8/13/81	OK WPS-1	YES	
F14862	63	6/17/81	7/30/80	OK WPS-1	YES	
F14[illegible]	63	5/8/81	8/12/81	OK WPS-1	YES	

MIDLAND

YES - 24
YES X - 4
NO - 3

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
P3010	54,23	1/28/81		OK	YES	
F2794	34,5	1/26/81		OK	YES	
F2779	54,26	1/24/81		OK	YES	
F2782	54,12,34	1/24/81		OK	YES	
F2778	54,23	1/24/81		OK	YES	
F2777	54,26	1/23/81		OK	YES	
F2786	12,34	1/24/81		OK	YES X	
F2785	34,12,5	1/24/81		OK	YES X	
F2783	54,21,34	1/24/81		OK	YES	
F2781	54,21,34	1/24/81		OK	YES X	
F2780	54,21,23	1/24/81		OK	YES X	
F2774	34,12	1/23/81		OK	YES	
F2768	63,26	1/23/81			NO /	26 & 63 NOT QUALIFIED FOR WPS-2
F2756	5,54	1/23/81		OK	YES	
F2748	5,63,12	1/23/81		OK	YES X	
F2599	5,63	1/23/81		OK	YES	
F2767	26,12	1/23/81		OK	YES	
F2809	54,5	1/28/81		OK	YES	
F2327	63,26	1/28/81		OK	YES	
P3075	63,26	12/17/80			NO /	63 & 26 NOT QUALIFIED FOR WPS-2
F02643	23,26,12	1/17/81			NO /	12, 23 & 26 NOT QUALIFIED FOR WPS-2
F02638	26,21	1/16/81		OK	YES	
F02642	23,26	1/17/81			NO /	26 & 23 NOT QUALIFIED FOR WPS-2
F02641	23,5	1/17/81			NO /	23 & 5 NOT QUALIFIED FOR WPS-2
F8571	12,23	8/30/79	2/9/81	2/3/80 10/29/79	YES X	WELDER 23 ON COPY
F8569	21,20,6	8/30/79	1/12/81	10/29/79 2/3/80 12/10/76	NO /	LP NOT LISTED
F8568	20,23	8/30/79	1/12/81	12/10/76 10/29/79	YES X	WELDER 23 ON COPY
F8567	21	8/30/79	2/9/81	2/3/80	YES X	
F6481	34	7/16/79	2/9/81	4/22/76	YES ?	DI (?) CLEANER ?
F6480	34	7/16/79	2/9/81	4/22/76	YES ?	DI (?) CLEANER ?
F6479	39,20	7/16/79	2/9/81	10/29/79 12/10/76	YES ?	BS ON COPY

MIDLAND

YES - 17
YES X - 8
NO - 6

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F10922	21,54	1/23/80	9/18/81	OK WPS-1	YES	
F12332	21,54	2/18/80	9/18/81	OK WPS-1	YES	
F15879	21,34	8/11/81	9/4/81	OK WPS-1	YES	
F17122	52,63	8/31/81	9/21/81	OK WPS-1	YES	
F15891	21	8/11/81	9/4/81	OK WPS-1	YES	
F02639	26	1/17/81		D	NO	26 NOT QUALIFIED FOR WPS-2
F02637	26,12	1/16/81		D	NO	26 & 12 NOT QUALIFIED FOR NPS-2
F2043	34	3/27/81		OK	YES	
F1977	20	3/5/81		OK	YES	
F2042	34	3/27/81		OK	YES	
P661	52,21	6/16/81			NO	52 & 21 NOT QUALIFIED FOR WPS-2
P660	52,54	6/16/81			NO	52 & 54 NOT QUALIFIED FOR WPS-2
P659	52,23	6/16/81			NO	52 & 23 NOT QUALIFIED FOR WPS-2
P658	52,23	6/16/81			NO	52 & 23 NOT QUALIFIED FOR WPS-2
P657	52,23	6/16/81			NO	52 & 23 NOT QUALIFIED FOR WPS-2
P3619	63	3/30/81			NO	63 NOT QUALIFIED FOR WPS-2
P3602	63,34	3/27/81			NO	63 NOT QULALIFED FOR WPS-2
F2052	12,23	3/27/81		OK	YES	
F2032	12,23	3/30/81			NO	12 & 23 NOT QUALIFIED FOR WPS-2
F2031	5,23,12	3/30/81			NO	5, 23 & 12 NOT QUALIFIED FOR WPS-2
F2223	12,23,21	4/1/81			NO	12, 23 & 21 NOT QUALIFED FOR WPS-2
F2023	12,63	3/31/81			NO	12 & 63 NOT QUALIFIED FOR WPS-2
F1877	63,12	3/20/81		OK	YES	
F1925	34	3/17/81		OK	YES	
F2009	12	3/31/81			NO	12 NOT QUALIFIED FOR WPS-2
F2014	34,63	3/31/81			NO	63 NOT QUALIFIED FOR WPS-2
F2022	12,34	3/31/81			NO	12 NOT QUALIFIED FOR WPS-2
F13759	23	12/11/80			YES	
P3446	26	1/24/81		OK	YES	
P3431	21,54	1/17/81		OK	YES	
-----	-- --	- --- ---		---	--	

MIDLAND

YES - 15
YES X - 0
NO - 16

CLASS I

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F9217	34	11/6/79	12/31/80	OK WPS-1	YES	
F9015	20	10/2/79	2/9/81	OK P5CS	YES X	OUT BS
F8943	21	9/23/79	2/9/81	OK P5CS	YES X	OUT ID
F8942	21	9/22/79	2/9/81	OK P5CS	YES X	OUT ID
F8939	20	10/22/79	1/12/81	OK WPS-1	YES X	OUT TW
F8941	12	9/22/79	2/9/81	OK P5CS	YES	
F8940	34	9/22/79	2/9/81	OK P5CS	YES	
F8938	5	9/22/79	2/9/81	OK P5CS	YES	
F8937	21	9/22/79	2/9/81	OK P5CS	YES	
F8936	21	9/22/79	2/9/81	OK P5CS	YES	
F8935	5	9/22/79	2/9/81	OK P5CS	YES	
F2312	26,5	10/20/80	1/6/81	OK WPS-1	YES	
P1665	23	12/20/79	10/31/80	OK WPS-1	YES	
P1663	23	12/20/79	10/31/80	OK WPS-1	YES	
F1538	34	8/27/79	2/9/81	OK P5CS	YES X	OUT GP (26)
P3726	21,9	8/14/81	9/4/81	OK WPS-1	YES	9 NOT IDENTIFIABLE
F11286	12	8/29/79	10/22/79	OK P5CS	YES	
F11207	21	8/29/79	10/15/79	OK P5CS	YES	
F5832	34	3/27/79	9/20/79	OK P5CS	YES	
F6467	21	7/14/79	9/21/79	OK P5CS	YES X	EJ NOT CIRCLED (COPY)
F4460	12	3/13/79	5/23/79	OK P5CS	YES	
						DR NOT CIRCLED (COPY)
F17428	21,9	8/17/81	9/4/81	OK WPS-1	YES X?	9 NOT IDENTIFIABLE
F17429	21,63	8/14/81	9/4/81	OK WPS-1	YES	
F17431	21	8/17/81	9/4/81	OK WPS-1	YES	
F17430	21,34	8/14/81	9/4/81	OK WPS-1	YES	
F17427	21	8/14/81	9/4/81	OK WPS-1	YES	
F17426	21	8/14/81	9/4/81	OK WPS-1	YES	
F17425	21	8/14/81	9/4/81	OK WPS-1	YES	
F10732	21,9	1/21/80	9/18/81	OK WPS-1	YES X?	9 NOT IDENTIFIABLE
F10849	21,54	1/21/80	9/18/81	OK WPS-1		

MIDLAND

YES -22
YES X - 6
NO -0

CLASS I

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F13740	12	12/10/80		O.K.	YES	
F13751	23	1/8/81		O.K.	YES	
F13758	DG,12	1/8/81		DG	NO	CAN'T DETERMINE DG
F13757	5	1/8/81		O.K.	YES	
F13756	JL,23	1/8/81		JL	NO	CAN'T DETERMINE JL
F13755	34	12/11/80		O.K.	YES	
F13754	34	12/11/80		O.K.	YES	
F13753	63	12/11/80		O.K.	YES	
F13752	12	12/11/80		O.K.	YES	
F13750	5	12/11/80		O.K.	YES	
F13748	DG,5	12/10/80		DG	NO	CAN'T DETERMINE DG
F13749	63	1/8/81		O.K.	YES	
P1306	34,54	10/1/79	1/14/80	54-1/22/80	NO	
P1187	23,12,21	9/14/79	12/18/80	OK WPS-1	YES	
P1182	12,20	9/22/79	1/8/81	OK WPS-1	YES X?	HM ON COPY, NOT CIRCLED
P1179	21	9/22/79	2/9/81	OK WPS-1	YES	
P1178	20,21	9/22/79	1/12/81	OK WPS-1	YES X	GP ON COPY, NOT CIRCLED
						BS,MDS,RM,DW - NOT CIRCLED
P1177	34,20	9/22/79	1/12/81	OK WPS-1	YES X	OUT ON COPY - GP,RM
P1106	21,20	7/16/79	1/12/81	OK WPS-1	YES X	OUT ON COPY - WJ
P1105	21,20	7/16/79	1/12/81	OK WPS-1	YES X	OUT ON COPY - WJ
P1104	20,21	7/16/79	1/12/81	OK WPS-1	YES X?	OUT ON COPY - WJ NO DL ON FILE (COPY)
P1103	34,20	7/16/79	1/12/81	OK WPS-1	YES X?	OUT BS ON COPY DL - NO PERSON ON FILE
P507	5	10/10/79	2/9/81	OK WPS-1	YES	
F13540	26,21	11/25/80	1/6/81	OK WPS-1	YES	
F13539	23,63	11/25/80	1/6/81	OK WPS-1	YES	
F10643	23	12/20/79	10/30/80	OK WPS-1	YES	
F10641	23	12/20/79	10/30/80	OK WPS-1	YES	
F10638	23	12/20/79	10/30/80	OK WPS-1	YES	
F10637	23	12/20/79	10/29/80	OK WPS-1	YES	
F9567	34	9/13/79	2/9/81	OK WPS-1	YES	

Pg 40

MIDLAND

YES - A
YES X - 7
NO - 4

CLASS I
PLANT 2

Pg 41

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	[illegible] DATE	TICKET O.K.	COMMENTS
F8727	12,21	9/13/79	12/17/80	OK WPS 1	YES X	34 ADDED TO COPY 12/17/80
P3609	12,21,23	3/30/81	4/30/81	OK WPS 1	YES	
P3610	34,63,23	3/30/81	4/3/81	OK WPS 1	YES	
F2807	63,34,21	1/28/81	2/19/81	OK WPS 1	YES	
F13608	21,26	11/22/80	1/22/81	OK WPS 1	YES	
P500	34	10/10/79	11/7/79	OK P5	YES	
P2833	6	8/27/79	12/7/79	NO P5	NO	RK NOT CIRCLED ON COPY
F10423	6,JDT	12/8/79	1/10/80	NO P5	NO	RK NOT CIRCLED ON COPY
F10424	6 JDT	12/8/79	1/10/80	NO P5	NO	RK NOT CIRCLED ON COPY
F10425	6,JDT	12/8/79	1/10/80	NO P5	NO	RK NOT CIRCLED ON COPY JDT NOT QUALIFIED
F10426	6,JDT	12/8/79	1/10/80	NO P5	NO	RK NOT CIRCLED ON COPY JDT NOT QUALIFIED
F10492	6,JDT	11/29/82	1/10/80	NO P5	NO	OUT TW ON COPY TW NOT QUALIFIED
F10010	48	11/3/79	1/10/80	OK P5	YES	
F10072	6	11/5/79	1/15/80	NO P5	NO	RK NOT CIRCLED ON COPY
F10062	6	11/5/79	1/14/80	NO P5	NO	RK NOT CIRCLED ON COPY
F13617	21	11/22/80	1/22/81	OK WPS 1	YES	
F13607	21,63	11/22/80	1/22/81	OK WPS 1	YES	
F13574	21,23	11/21/80	1/22/81	OK WPS 1	YES	
P495	21	8/29/79	10/10/79	NO P5	NO	RK & DW LISTED ON COPY NOT QUALIFIED
F5817	34	4/14/79	8/27/79	NO P5	NO	OUT BS ON COPY BS NOT QUALIFIED
F6485	34	7/17/79	9/17/79	NO P5	NO	OUT BS ON COPY BS NOT QUALIFIED
P1114	21	7/12/79	10/1/79	NO P5	NO	OUT DW NOT QUALIFIED
P1115	34	7/12/79	10/3/79	NO P5	NO	OUT WJ ON COPY - NOT QUALIFIED
P1107	21	7/16/79	9/17/79	OK P5	YES	
F9259	21	8/31/79	11/5/79	NO P9	NO	DW ON COPY - NO QUALIFIED
F8952	21	9/22/79	10/31/79	NO P9	NO	RK ON COPY
F8951	21	9/22/79	10/31/79	NO P9	NO	RK ON COPY
F2704	34,63,21	1/17/81	2/18/81	OK WPS 1	YES	

MIDLAND

YES - 11
YES X - 1
NO - 16

CLASS I

ATTACHMENT #2

INITIAL CATEGORIZATION OF

MIDLAND CLASS 1 CATEGORY 3 ("NO") TRAVELERS

Sept. 28, 1982

CATEGORIES

A. DATE DISCREPANCIES BETWEEN ISSUE DATE, WORK DATE, INSPECTION DATE.

B. NO WELD PROCEDURE ON TICKET.

C. TWO (2) WELD PROCESSES LISTED - WELDER QUALIFIED TO ONE (1) ONLY OR NEITHER.

D. WELDER NEVER QUALIFIED, AND/OR UNIDENTIFIABLE INITIALS ON COPY. (ARE INITIALS WELDER, INSPECTOR OR CLEANER?)

E. WELDER NOT QUALIFIED, BUT QUALIFIED AT LATER DATE.

1. AT TRAVELER ISSUE DATE (NO WORK DATE AVAILABLE)
2. AT WORK DATE

F. MISCELLANEOUS OTHER.

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: 1 PLANT: II

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-6656	1	D	-TRAVELER VOIDED-
F-6654	1	D	
F-6652	1	D	-TRAVELER VOIDED-
F-6648	1	D	-TRAVELER VOIDED-
F-6644	1	D	-TRAVELER VOIDED-
F-6643	1	D	-TRAVELER VOIDED-
F-6642	1	D	-TRAVELER VOIDED-
F-4425	2	D	Unidentifiable intials on copy
F-4399	2	D	" " "
F-4398	2	D	" " "
F-4397	2	D	" " "
F-4271	2	D	" " "
F-4269	2	D	" " "
F-4284	2	D	" " "
F-4279	2	D	" " "
F-2462	2	D	" " "
F-4276	3	D	" " "
F-4275	3	D	" " "
P-2464	3	D	" " "
F-4424	3	D	" " "
F-804	4	F	No Dates/Qualification status undetermined
F-11202	6	E (2)	Welder #26 & #39
F-11206	6	E (2)	Welder #39
F-11210	6	E (2)	Welder #39
F-11211	6	E (2)	Welder #26 -TRAVELER VOIDED-
F-11200	6	E (2),D	Welder #39/D.I. -TRAVELER VOIDED-
F-6449 -	6	D	D.L.
F-6444	6	E (2)	Welder #39
F-6443	6	E (2)	Welder #39
P-1110	6	E (2)	Welder #48 -TRAVELER VOIDED-

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: 1 PLANT: 11

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-9379	6	D	Welder #6
F-9378	6	D	Welder #6
F-8742	8	D	Welder #63 -TRAVELER VOIDED-
F-11198	9	D	S.L.
F-11186	9	E (2)	Welder #48
F-11187	9	D	S.L.
F-11189	9	D	D.L. -TRAVELER VOIDED-
F-11195	9	E (2)	Welder #48 -TRAVELER VOIDED-
F-11196	9	E (2)	Welder #48
F-9256	9	E (2)	Welder #26
F-9251	9	E (2)	Welder #26
P-2570	10	D	D.L. -TRAVELER VOIDED-
P-1150	10	E (2)	Welder #6 -TRAVELER VOIDED-
P-1149	10	E (2)	Welder #39
F-6482	10	E (2)	Welder #26 -TRAVELER VOIDED-
F-6465	10	E (2)	Welder #6 -TRAVELER VOIDED-
F-6464	10	E (2)	Welder #43 -TRAVELER VOIDED-
F-6443	10	E (2)	Welder #26
F-5847	10	E (2)	Welder #6
F-5846	10	E (2)	Welder #6
F-5842	10	E (2)	Welder #6 -TRAVLER VOIDED-
P-493	10	E (2)	Welder #5
P-494	10	E (2)	Welder #39 & #6 -TRAVELER VOIDED-
F-11173	10	E (2)	Welder #5 -TRAVELER VOIDED-
F-11177	10	E (2)	Welder #5
F-11178	10	C	Welder #26
F-5636-	11	E (2)	Welder #26
F-5632	11	E (2)	Welder #5
F-5054	11	E (2)	Welder #5
F-5053	11	E	

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: 1 PLANT: 11

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-5829	12	E (2)	Welder #26
F-5827	12	E (2)	Welder #39
F-5826	12	E (2)	Welder #26 -TRAVELER VOIDED-
F-4448	12	E (2)	Welder #43
F-4444	12	E (2)	Welder #6 -TRAVELER VOIDED-
F-4443	12	D	M.K.
P-2596	12	E (2)	Welder #5 -TRAVELER VOIDED-
F-5814	12	D	D.R.
F-6813	12	D	D.R.
F-5815	12	E (2)	Welder #26
F-5816	12	E (2)	Welder #26
F-5818	12	E (2)	Welder #39
F-5812	12	E (2)	Welder #26
F-5811	12	E (2)	Welder #26
F-5808	12	E (2)	Welder #5
F-11105	14	F	Welder #58 not identified -TRAVELER VOIDED-
F-11036	14	F	Welder #58 not identified -TRAVELER VOIDED-
P-2756	29	E (2)	Welder #39
F-04412	29	E (2)	Welder #39 -TRAVELER VOIDED-
F-04411	29	E (2)	Welder #39 -TRAVELER VOIDED-
F-04408	29	E (2)	Welder #39
F-4404	29	E (2)	Welder #39
F-11102	29	F	Welder #58 not identified
P-2971	30	F	Welder #24 not identified
F-9260	31	D	Welder #6
F-1305	31	D	Welder #6
P-1308-	31	E (2)	Welder #48
F-11171	31	E (2)	Welder #26 -TRAVELER VOIDED-
F-11176	31	E (2)	Welder #6
F-11205	31	E (2)	Welder #26

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: 1 PLANT: II

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-1872	17	D	-TRAVELER VOIDED-
F-8801	19	E-2	#52-Welder -TRAVELER VOIDED-
P-1112	19	C	-TRAVELER VOIDED-
F-10268	20	E	#30
P-1201	20	E	#54
F-6456	20	E	#54
F-8767	20	E	#52 -TRAVELER VOIDED-
F-8798	20	E	#52
F-8816	20	E	#54 -TRAVELER VOIDED-
F-10484	21	E	#54
F-10489	21	E	#52
F-10050	23	E	#30 -TRAVELER VOIDED-
F-10485	23	E	#54
F-10066	24	E	#30 -TRAVELER VOIDED-
P-1514	24	E	#30 -TRAVELER VOIDED-
P-1523	24	D	D.L. ? -TRAVELER VOIDED-
P-1511	24	E	#54 -TRAVELER VOIDED-
P-1510	24	D	W.I. & G.S. ? -TRAVELER VOIDED-
P-10262	24	E	#54 -TRAVELER VOIDED-
F-13246	27	D	#66 ? -TRAVELER VOIDED-
F-13254	27	E	#64 -TRAVELER VOIDED-
F-11100	27	D	#58 ?
F-11117	27	D	#58 ?
F-11050	28	E	#26 -TRAVELER VOIDED-
F-11091	28	E	#26 -TRAVELER VOIDED-
F-11118	28	D	#58 ? -TRAVELER VOIDED-
F-11132	28	D	#58 ? -TRAVELER VOIDED-
P-1491	16	E	#54
F-02636	34	C	#12 not qualified for WPS-2
F-02635	34	C	#12 not qualified for WPS-2

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: 1 PLANT: II

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-13717	34	D	#21 & #5 not qualified for WPS-2
F-2320	35	D	#21 not qualified for WPS-2 -TRAVELER VOIDED-
F-2301	35	B	WPS not circled -TRAVELER VOIDED-
F-13720	35	D	#21 & #53 not qualified for WPS-2
P-661	38	A,D	#52 & #21 not qualified for WPS-2
P-660	38	A,D	#52 & #54 not qualified for WPS-2
P-659	38	A,D	#52 & #53 not qualified for WPS-2
P-658	38	A,D	#52 & #53 not qualified for WPS-2
P-657	38	A,D	#52 & #53 not qualified for WPS-2
P-3619	38	A,D	#63 not qualified for WPS-2
P-3602	38	A,D	#63 not qualified for WPS-2 -TRAVELER VOIDED-
F-2032	38	A,D	#12 & #23 not qualified for WPS-2 -TRAVELER VOIDE
F-2031	38	A,D	#5, #12, & #23 not qualified for WPS-2 -TRAVELER VOIDED-
F-2223	38	A,D	#12, #23 & #21 not qualified for WPS-2
F-2023	38	A,D	#12 not qualified for WPS-2
F-2009	38	A,D	#12 not qualified for WPS-2
F-2014	38	A,D	#63 not qualified for WPS-2 -TRAVELER VOIDED-
F-2022	38	A,D	#12 not qualified for WPS-2
F-13758	40	D	D.G. ? -TRAVELER VOIDED-
F-13756	40	D	J.L. ? -TRAVELER VOIDED-
F-13748	40	D	D.G. ?
P-1306	40	E	#54
P-495	41	D	R.K. & D.W. ? -TRAVELER VOIDED-
F-5817	41	D	B.S. ?
F-6485	41	D	B.S. ?
P-1114	41	D	D.W. ?
P-1115	41	D	W.J. ?
P-2833	41	D	R.K. ? -TRAVELER VOIDED-
F-10423	41	D	R.K. ?
F-10424	41	D	R.K. ?

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-4943	11	E (2)	Welder #5
F-4941	11	E (2)	Welder #39
P-2597	11	E (2)	Welder #5 & #39
P-2595	11	D,E (2)	Welder #5/D.R.
P-2594	11	E (2)	Welder #5
P-1093	11	E (2)	Welder #43
F-6448	11	E (2)	Welder #26
F-6454	11	E (2)	Welder #48
F-6486	11	D	D.L.
F-5834	11	E (2	Welder #5 -TRAVELER VOIDED-
F-4446	11	E (2)	Welder #39
F-4445	11	E (2)	Welder #6 -TRAVELER VOIDED-
F-6466	11	E (2)	Welder #5
F-5835	11	E (2)	Welder #26
F-5837	12	E (2)	Welder #39
F-5836	12	E (2)	Welder #6 -TRAVELER VOIDED-
F-5830	12	E (2)	Welder #5 -TRAVELER VOIDED-
F-10426	41	D	R.K. ?
F-10492	41	D	R.K. ?
F-10072	41	D	R.K. ? -TRAVELER VOIDED-
F-10062	41	D	R.K. ? -TRAVELER VOIDED-
F-9259	41	D	D.W. ?
F-8952	41	D	R.K. ? -TRAVELER VOIDED-
F-8951	41	D	R.K. ?
F-02632	34	C	#12 not qualified for WPS-2
F-02630	34	C,D	#26 qualified after work date for WPS-2 #54 not qualified for WPS-2
F-2657	34	D	#23 not qualified for WPS-2
F-2656	34	D	#23 not qualified for PWS-2
F-3023	34	D	#21 & #54 not qualified for WPS-2

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: PLANT:

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-13746	34	D	#21 & #23 not qualified for WPS-2
F-13719	34	D	#21 & #63 not qualified for WPS-2
F-13718	34	D	#21 not qualified for WPS-2
F-14851	36	D,C	#12
F-14819	36	D	R.M.
F-14586	36	D	Welder #63 & #26
F-2768	37	D	Welder #26 & #63 -TRAVELER VOIDED-
P-3075	37	D	Welder #63 & #26
F-02643	37	D	Welder #12, #23 & #26
F-02642	37	D	Welder #23 & #5
F-02641	37	D	Welder #23 & #5
F-8569	37	D	L.P.
F-7256	2	E (2)	39 Qualified 10/29/79
F-6453	6	E (2)	
F-6452	6	E (2)	
F-02639	38	D	26 not qualified for WPS-2
F-02637	38	D	26 & 12 not qualified for WPS-2
F-3406	35	D	No welder I.D. for fitting
F-10425	41	D	RK not circled on copy JDT not qualified

ATTACHMENT #3

FINAL LISTING AND BREAKDOWN OF

MIDLAND CLASS 1 CATEGORY 3 ("NO") TRAVELERS

Sept. 28, 1982

FINAL SUMMARY OF TRAVELERS WITH WELD RECORD DISCREPANCIES

Following is a listing of all Travelers that exhibit discrepancies in the information pertinent to welding.

The list was distilled from the original listing of all record copy Travelers that had a corresponding "working" (zerox) copy.

Definitions used in describing the discrepancies listed are as follows:

No Qualification Records on file"

Indicates that the records of welder qualification are not on file within the Zack Company and could not be found in the files of the test lab used for welder qualification testing. This leaves no proof that the individual in question was qualified to weld during the time frame in question.

Qualified:

Indicates the earliest date that a welder passed a welder qualification test for the particular welding process call-out on the Traveler. Records for all welders listed as qualified are on file within the Zack Company.

Work Date:

Indicates the date that welding was performed by evidence of a date entered by the welder next to his I.D. number on the Traveler.

Work Inspected:

Indicates the date that the work was inspected by evidence of a date entered next to the Inspector's initials. This date is usually within two days of actual welding and is the next most representative date for establishing a time frame for work performance.

Material Shipped:

Indicates the date that material listed on a particular Traveler was shipped to a jobsite. This date is usually within two (2) weeks of completion of work. This date is used to establish a time frame for the work when no work date or inspection date is on the Traveler. This date is more indicative of the actual work date than the Traveler issue date.

WELD RECORD DISCREPANCIES FOR PROJECT: MIDLAND Page 1 CLASS I

TRAVELER NO.	PAGE	WELDER I.D.	COMMENTS
F-6654	1	Gibson	No qualification records on file. Work inspected 9-11-78.
F-4425	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4399	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4398	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4397	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4271	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4269	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4284	2	#39	Qualified 10-29-79, work inspected 5-21-79.
F-4279	2	#39	Qualified 10-29-79, work inspected 5-21-79.
F-2462	2	#39	Qualified 10-29-79, work inspected 5-18-79.
F-4276	3	#39	Qualified 10-29-79, work inspected 6-5-79.
F-4275	3	#39	Qualified 10-29-79, work inspected 6-5-79.
P-2464	3	#39	Qaulified 10-29-79, work inspected 6-5-79.
F-4424	3	#39	Qualified 10-29-79, work inspected 6-5-79.
F-11202	6	#39	Qualified 10-29-79, work inspected 10-12-79.
F-11206	6	#39	Qualified 10-29-79, work inspected 10-12-79.
F-11210	6	#39	Qualified 10-29-79, work inspected 10-12-79.
F-6444	6	#39	Qualified 10-29-79, work inspected 9-17-79.
F-6443	6	#39	Qualified 10-29-79, work inspected 9-17-79.
F-9379	6	#6	Qualified 10-29-79, work inspected 10-8-79.
F-9378	6	#6	Qualified 10-29-79, work inspected 10-8-79.
F-11186	9	#48	Qualified 10-29-79, work inspected 10-10-79.
F-11196	9	#48	Qualified 10-29-79, work inspected 10-11-79.
P-1149	10	#39	Qualified 10-29-79, work inspected 9-17-79.
F-5847	10	#6	Qualified 10-29-79, work inspected 9-13-79.
F-5846	10	#6	Qualified 10-29-79, work inspected 9-13-79.
F-5827	12	#39	Qualified 10-29-79, work inspected 9-14-79.
F-4448	12	#43	Qualified 10-29-79, work inspected 9-12-79.

WELD RECORD DISCREPANCIES FOR PROJECT: MIDLAND Page 2 CLASS I

TRAVELER NO.	PAGE	WELDER I.D.	COMMENTS
F-5818	12	#39	Qualified 10-29-79, work inspected 8-28-79.
F-04408	29	#39	Qualified 10-29-79, work inspected 6-5-79.
F-4404	29	#39	Qualified 10-29-79, work inspected 6-5-79.
F-11176	31	#6	Qualified 10-29-79, work inspected 10-24-79.
F-11209	31	#39	Qualified 10-29-79, work inspected 10-27-79.
F-10268	20	#30	Qaulified 1-22-80, work inspected 1-10-80.
P-1201	20	#54	Qualified 1-22-80, work inspected 1-9-80.
F-6456	20	#54	Qualified 1-22-80, work inspected 1-9-80.
F-10484	21	#54	Qualified 1-22-80, work inspected 1-10-80.
F-10458	23	#54	Qualified 1-22-80, work inspected 1-10-80.
P-1491	16	#54	Qualified 1-22-80, work inspected 1-3-80.
P-1306	40	#54	Qualified 1-22-80, work inspected 1-14-80.
F-5817	41	#39	Qualified 10-29-79, work inspected 8-27-79.
F-6485	41	#39	Qualified 10-29-79, work inspected 9-17-79.
P-1114	41	#48	Qualified 10-29-79, work inpsected 10-1-79.
F-4941	11	#39	Qualified 10-29-79, work inspected 8-28-79.
P-2579	11	#39	Qualified 10-29-79, work inspected 8-28-79.
P-1093	11	#43	Qualified 10-29-79, work inspected 10-1-79.
F-6454	11	#48	Qualified 10-29-79, work inspected 10-1-79.
F-4446	11	#39	Qualified 10-29-79, work inspected 9-20-79.
F-5837	12	#39	Qualified 10-29-79, work inpsected 9-13-79.
F-10492	41	#54	Qualified 1-22-80, work inpsected 1-10-80.
F-7256	2	#39	Qualified 10-29-79, work inpsected 6-5-79.

ATTACHMENT #4

LISTING OF MIDLAND CLASS 1 "WORKING" COPY TRAVELERS

CONTAINING NO INFORMATION PERTINENT TO THE REVIEW

Sept. 28, 1982

1171 TOTAL

MIDLAND

CLASS I

PLANT 2 TRAVELER COPIES WITH NO EXTRA WELDER I.D. MARKINGS

P-507	F-1947	F-2633	F-2809
657	1998	2634	2851
658	2009	2635	2852
659	2014	2636	2866
660	2022	2637	2867
661	2023	2638	2868
695	2031	2639	2869
1103	2032	2640	2870
1104	2052	2641	2871
1105	2053	2642	2872
1106	2116	2643	2873
1177	2221	2656	2874
1178	2223	2657	2875
1179	2294	2662	2976
1180	2301	2663	2877
1181	2318	2704	2878
1182	2319	2748	2879
1202	2320	2756	2880
1224	2321	2767	2881
1297	2325	2768	P-2917
F-1538	2326	2773	2918
P-1666	2327	2774	2919
1667	2330	2776	2921
F-1794	2333	2777	2922
1804	2339	2778	2955
1851	2358	2779	2971
1857	2359	2780	2972
1872	2519	2781	2973
1877	2520	2782	2974
1881	2521	2783	2975
1925	2522	2785	2976
1927	2599	2786	2977
1928	2617	2787	2978
1929	2624	2788	2984
1930	2625	2789	2986
1931	2626	2790	2988
1932	2627	2792	2989
1933	2628	2794	2990
1934	2629	2795	2992
1935	2630	2798	3007
1937	2631	2805	3008
1946	2632	2807	3009

(168)

MIDLAND

CLASS I

PLANT 2 TRAVELER COPIES WITH NO EXTRA WELDER I.D. MARKINGS

P-3010	F-6481	F-10951	F-12453
3011	6483	10952	12454
3018	6650	10953	12466
3023	8417	10954	12467
3050	8567	11960	12468
3075	7568	11988	12469
3318	8569	11997	12472
3325	8570	12002	12473
3326	8571	12033	12474
3327	8572	12034	12475
3328	8722	12043	12476
3330	8723	12051	12479
3331	8724	12063	12480
3332	8725	12086	12481
3394	8736	12091	12482
3396	8800	12096	12487
3397	8909	12100	12488
3402	8912	12101	12489
3415	8929	12114	12490
3430	8930	12115	12491
3431	8931	12116	12492
3441	8932	12117	12493
3444	8933	12118	12494
3446	8934	12119	12495
3447	8935	12120	12496
3448	8936	12121	12497
3449	8937	12123	12498
3450	8938	12126	12500
3451	8939	12128	12501
3452	8940	12130	13100
3453	8941	12132	13238
3455	8942	12134	13239
3468	8943	12136	13294
3612	9015	12138	13295
3794	9128	12140	13296
3913	9217	12142	13297
3914	9467	12144	13298
F-6385	10267	12178	13299
6469	10483	12255	13301
6471	10603	12256	13302
6472	10604	12257	13303
6473	10605	12258	13304
6474	10606	12259	13480
6477	10607	12260	13481
6476	10608	12261	13482
6478	10645	12262	13483
6479	10849	12263	13484
6480	10950	12265	13485

MIDLAND

CLASS I

PLANT 2 TRAVELER COPIES WITH NO EXTRA WELDER I.D. MARKINGS

F-13486	F-14619	F-17427
13487	14620	17428
13488	14621	17429
13497	14622	17430
13498	14623	17431
13499	14820	18437
13503	14832	17439
13504	14834	17440
13571	14835	17441
13573	14836	17442
13574	14851	17443
13575	14866	17452
13576	15503	17453
13577	15663	
13591	15665	
13603	15667	
13604	15795	
13605	15879	
13607	15891	
13608	15938	
13609	15939	
13610	15940	
13611	17066	
13612	17067	
13613	17070	
13614	17071	
13615	17073	
13616	17074	
13617	17075	
13633	17076	
13634	17117	
13686	17118	
13694	17122	
13716	17123	
13717	17124	
13718	17125	
13719	17126	
13720	17289	
13721	17297	
13723	17298	
13727	17299	
13746	17300	
13763	17301	
13764	17308	
13765	17309	
13781	17402	
13784	17424	
13828	17425	
13988	17426	

ATTACHMENT #5

LISTING OF

MIDLAND VOIDED TRAVELERS

Sept. 28, 1982

MIDLAND CLASS I VOIDED TRAVELER LIST

F-8911
11171
11173
11189
11195
P-1523
F-2768
8952
10062
10072
5830
5836
4445
5834
2833
P-495
F-13756
13758
2014
2301
2032
P-3602
F-2320
2031
11132
11118
11091
11050
13254
13246
10262
P-1510
1511
P-1514
F-10066
10050
8816
8767
P-1112
F-8801
1872
04411
04412
11036
11105
P-2596
F-4444
5826
P-494
F-5842
6464
6465
6482
P-1150
2570
F-8742
P-1110
F-11200
11211
6643
6648
6644
6642
6652
6656

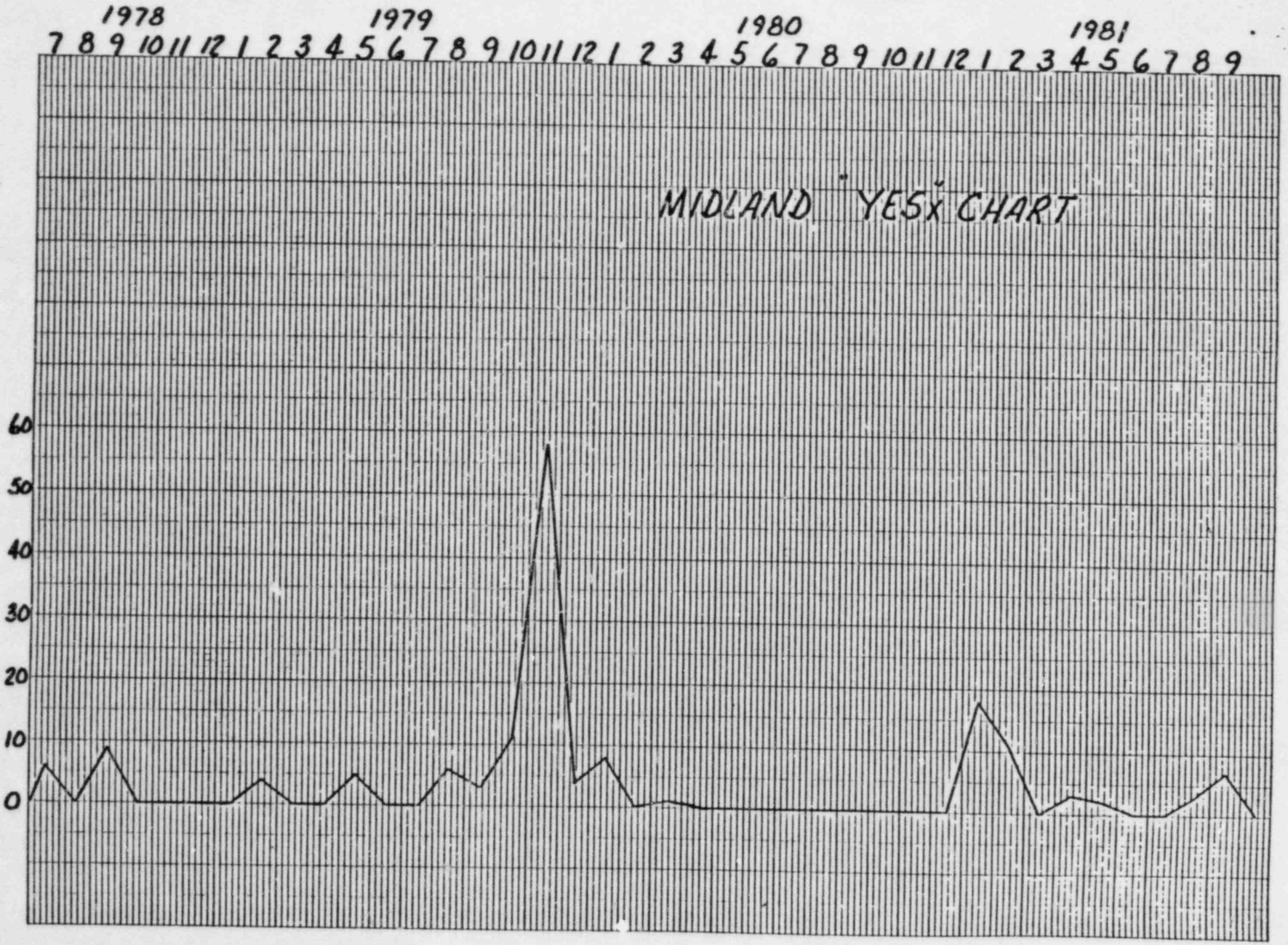
ATTACHMENT #6

DISTRIBUTION BY DATE OF OCCURRENCE

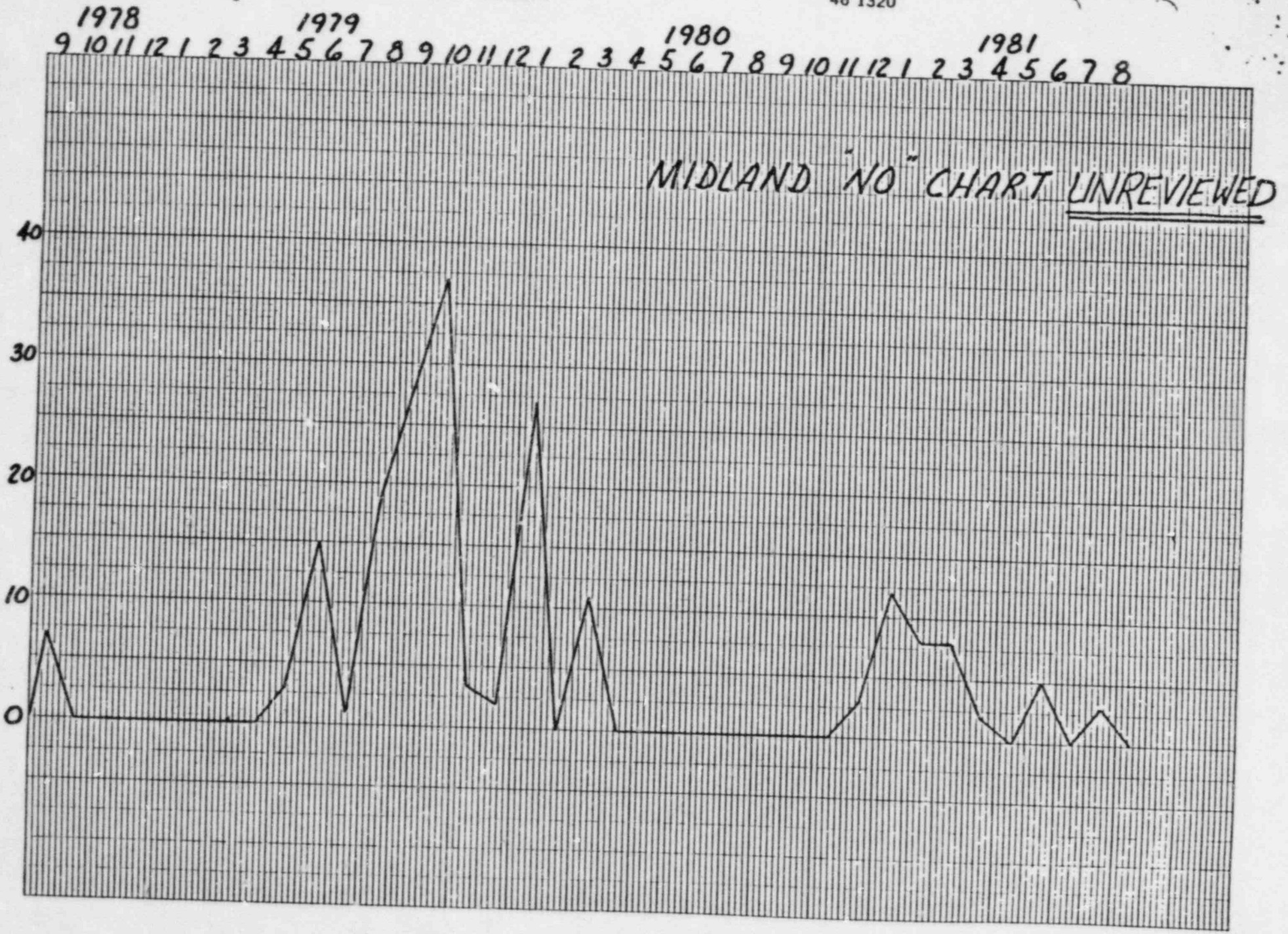
OF

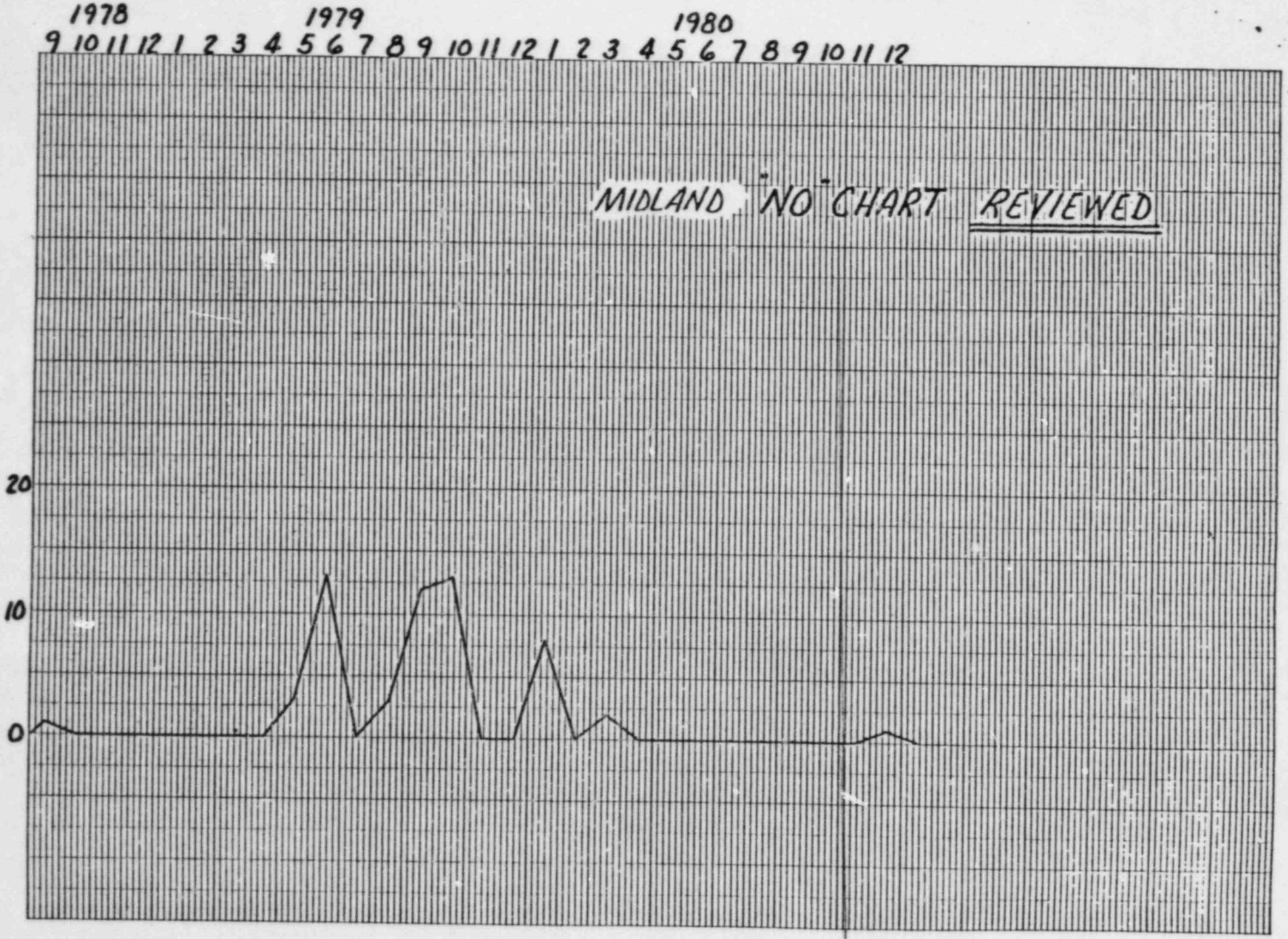
MIDLAND CLASS 1 DISCREPANT TRAVELERS

Sept. 28, 1982



46 1320





ATTACHMENT #7

WELDER MATRIX

Sept. 28, 1982

NAME	NO.	HIRE	TERM.	PLANT 2 WIRE ISSUE	GMAW CS	GMAW SS	GMAW CS/SS	SMAW CS	SMAW SS	SMAW CS/SS
H. Bartolino	14	2/1/78	6/25/78	N/A	2/3/78	N/A	N/A	N/A	N/A	N/A
T. Boyle	20	6/1/76	N/A	5/15/79-10/14/81	12/10/76	1/26/82	7/13/81	N/A	N/A	N/A
C. Byers	61	1/31/80	3/31/80	N/A	3/25/80	N/A	N/A	N/A	N/A	N/A
W. Collins	67	3/12/80	5/22/80	4/14/80-5/13/80	3/25/80	N/A	N/A	N/A	N/A	N/A
J. Dianis	9	7/31/78	9/2/79	N/A	3/2/79	N/A	N/A	N/A	N/A	N/A
I. Dickey	21	9/12/77	2/15/82	5/15/79-10/1/81	2/3/78	N/A	7/13/81	10/15/81	N/A	N/A
M. Drozdek	23	5/29/79	9/6/81	12/29/79-8/24/81	10/29/79	N/A	7/13/81	N/A	N/A	N/A
V. Genova	43	9/11/79	2/ /80	N/A	10/29/79	N/A	N/A	N/A	N/A	N/A
K. Gibson	11	7/7/78	11/19/78	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Z. Golon	49	6/1/65	N/A	N/A	4/27/76	8/28/79	9/25/79	4/9/79	N/A	N/A
T. Gonzalez	34	9/30/69	N/A	5/15/79-10/15/81	4/22/76	1/26/82	7/13/81	4/22/76	2/25/82	N/A
C. Hoffman	1	6/9/76	1/11/81	N/A	6/22/76	N/A	N/A	6/22/76	N/A	N/A
J. Jacobs	64	2/18/80	8/31/80	3/27/80-8/27/80	3/25/80	N/A	N/A	N/A	N/A	N/A
W. Jordan	5	4/3/72	9/18/81	6/5/79-8/7/81	3/2/79	N/A	7/13/81	N/A	N/A	N/A
L. Kuzmin	6	6/1/76	2/19/82	11/7/79 2/5/80	10/29/79	N/A	N/A	6/1/77	N/A	N/A
H. Matkowich	12	1/10/78	12/28/81	5/15/79 8/26/81	2/3/78	N/A	7/13/81	N/A	N/A	N/A
R. Mech	59	1/13/80	4/4/80	3/26/80	3/25/80	N/A	N/A	N/A	N/A	N/A
D. Parker	11	12/7/78	1/7/79	N/A	3/2/79	N/A	N/A	N/A	N/A	N/A
E. Petkus	26	7/10/78	1/5/82	5/15/79-3/24/81	3/2/79	N/A	N/A	4/1/81	N/A	N/A
E. Place	52	11/4/79	10/7/81	N/A	3/25/80	N/A	N/A	N/A	N/A	N/A
A. Purington	60	1/31/80	4/6/80	N/A	3/25/80	N/A	N/A	N/A	N/A	N/A
R. Quinn	9	5/27/80	N/A	10/80 10/5/81	7/8/80	1/26/82	8/28/81	N/A	N/A	N/A
R. Scott	63	2/8/80	N/A	8/4/80 10/14/81	7/8/80	1/26/82	7/13/82	N/A	N/A	N/A
V. Smith	39	2/5/79	8/31/80	5/15/79-8/13/80	10/29/79	N/A	N/A	N/A	N/A	N/A
C. Socha	30	9/8/78	10/19/80	N/A	1/22/80	N/A	N/A	N/A	N/A	N/A
V. Sowa	56	3/31/80	6/29/80	5/1/80-6/11/80	4/17/80	N/A	N/A	N/A	N/A	N/A
D. Way	48	7/19/79	9/21/80	11/5/79-6/20/80	10/29/79	N/A	N/A	N/A	N/A	N/A
R. Weiss	66	3/12/80	5/25/80	3/26/80-5/2/80	3/25/80	N/A	N/A	N/A	N/A	N/A
T. Weyer	54	12/7/79	10/8/81	3/3/80-9/24/81	1/22/80	N/A	7/13/81	N/A	N/A	N/A
R. Zogata	29	5/19/69	N/A	N/A	12/10/76	N/A	N/A	N/A	N/A	N/A

ATTACHMENT #8

CLEANER & INSPECTOR MATRIX

Sept. 28, 1982

CLEANER/INSPECTOR LIST

NAME	NO.	POSITION	HIRE	TERM.
S. Bilek	6	Cleaner	3/11/80	8/17/80
J. Bonsimore	14	Cleaner	8/30/78	2/17/80
E. Bryson	65	Cleaner	3/11/80	8/17/80
T. Burton	43	Cleaner	4/01/80	7/06/80
R. Diaferia	55	Cleaner	9/14/78	3/22/81
C. Eichstaedt	N/A	Q.A.	1/07/78	N/A
J. Fitzpatrick	22	Cleaner	3/29/71	N/A
J. Friskenstein	?	Cleaner	9/18/79	9/24/79
H. Geyer	N/A	Q.C.	8/66	N/A
A. Hansen	Gary	Cleaner	1/24/80	4/02/80
D. Hanslor	59	Cleaner	4/16/80	8/31/80
D. Ireton	11	Cleaner	5/16/79	11/25/79
E. Jerzak	32	Cleaner	8/23/78 11/03/80	8/10/80 3/22/81
M. Johnson	25	Cleaner	9/15/78	N/A
M. Kelly	?	Cleaner	2/16/81	3/19/82
P. Klecki	57	Cleaner	4/07/80	5/15/80
S. Lanasa	?	Cleaner	2/28/78	4/23/78
M. Lilja	15	Cleaner	6/13/79	N/A
J. Lott	33	Cleaner	?	N/A
J. McElroy	45	Cleaner	5/07/79	11/03/80
J. McGuin	44	Cleaner	1/21/80	3/22/80
J. Michalik	N/A	Q.C.	2/29/80	1/17/82
R. Miklos	51	Cleaner	12/03/79	8/03/80
R. Morency	8	Cleaner	8/10/78	12/28/80
L. Pabisinski	50	Cleaner	9/17/79	N/A
D. Richards	35	Q.C.	6/01/78	N/A
D. Rychell	4	Cleaner	4/29/74	7/09/82
K. Schaeffer	N/A	Q.C.	8/18/80	4/23/82
D. Schultz	61	Cleaner	11/30/70	5/04/80
J. Spychalski	3	Cleaner	5/76	N/A
E. Thompson	N/A	Q.C.	11/07/77	11/02/80

ATTACHMENT #9

STATEMENT OF THOMAS BOYLE

Sept. 28, 1982

STATEMENT OF THOMAS BOYLE

My name is Thomas Boyle. From approximately May 1979 to October 1981 I was the General Foreman of Plant No. 2.

During the time period when the Xerox copy of the yellow copy of the traveler was sent over to Plant No. 2, I would give Bud Prim a slip of paper containing or orally give him information with respect to who did the welding.

The initials which appear on the Xerox copies of the yellow copy are not necessarily the initials of the person doing the welding. The information on the Xerox copy was an effort to keep track of what was done to the material while in plant No. 2. Therefore, the initials on the Xerox copy could be the initials of persons, including welders, who did cleaning or shipping. Therefore, it is impossible to tell just by looking at the Xerox copy who did welding, cleaning or shipping. Also, these Xerox copies are not the official records. The official records are the actual yellow copies retained by Zack.

At the time I attempted to discard the Xerox copies, I did so because these records were not the official records and I did not feel we had any obligation to retain them. Also, I felt that because I knew that there were initials of persons on the Xerox copies who may not have done welding and who may have done cleaning or shipping and because there was no way to tell by looking at the Xerox copies who did what, I thought the Xerox copies would cause unnecessary confusion. I talked to Bud Prim. He agreed that these records were not the official records and that Zack had no obligation to retain them and that they would cause unnecessary confusion. Bud Prim agreed that I should discard them.

Dated: August 27, 1982

Thomas P. Boyle

Thomas Boyle

ATTACHMENT #10

STATEMENT & QUALIFICATION RECORDS

of

KENNETH GIBSON

Sept. 28, 1982

August 27, 1982

To Whom It May Concern:

The following are the jobs and/or training I have had as a Sheetmetal Welder.

1. Attended adult evening school in Joliet for welding class.
2. Started working for Zack in 1966-67 (approximately 18 months).
3. Worked for R. B. Heyworth for 3 or 4 months.
4. Back to Zack - worked at Republic Steel job and at U. S. Steel.
5. Took union welding test in 1977.
6. Worked for Babcock and Wilcox at Morris Station Power House in Joliet (visual test).
7. Worked at Pullman Sheetmetal and took tests for them. Did not get results of tests but they should have copies.
8. Worked for Peerless Sheetmetal Co.
9. Worked for E. F. Guafstson in Skokie.
10. Worked for Merchants Sheetmetal Co. in Chicago.
11. Took visual tests for R. Irsay Company.
12. Working in Clinton Power Station for 20 months.

Kenneth Gibson

Kenneth Gibson

Att: Certifications

CERTIFICATE

OF

TEST AND APPROVAL OF WELDING PROCESS

AND

QUALIFICATION OF OPERATOR OF WELDING EQUIPMENT

PITTSBURGH TESTING LABORATORY, has witnessed the welding and testing of test specimens welded by an employee of

National Training Fund
for the Sheet Metal & Air Conditioning Industry
1900 L Street, N. W., Suite 405
Washington, D. C.
in accordance with

American Society of Mechanical Engineers
Boiler and Pressure Vessel Code, Section IX,
1974 Edition plus Addenda through Summer 1976

Welding Operator Kenneth Gibson SS# No. 347-28-0161

Welding Process Shielded Metal Arc

Operator Tested

This is to certify that the Welding Technic used in this test and described in SPECIFICATIONS FOR WELDING PROCESS No. PG-4690 and the results of the test given in PHYSICAL TEST REPORT No. 772675 complied with the requirements of the above code within the following limitations.

Maximum Plate or Wall Thickness 3/4"
Minimum Plate or Wall Thickness 1/16"
Welding Positions Flat, OH & Horiz.
Other Limitations Fillet & Groove

Remarks Group No. P1 to P1

No.

Order No. PG-4690

File No.

Approved 2-7-77

PITTSBURGH TESTING LABORATORY

By Earl Gallagher

DIRECTOR

ESTABLISHED 1881

PITTSBURGH, PA.

AS A MUTUAL PROTECTION TO CLIENTS THE PUBLIC AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS, AND AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS OR EXTRACTS FROM OR REGARDING OUR REPORTS IS RESERVED PENDING OUR WRITTEN APPROVAL.

Lab No. 772675

Order No. PG-4690

Date 2/7/77

PHYSICAL TEST REPORT OF WELDER PERFORMANCE QUALIFICATION TESTS

Client: National Training Fund, for the Sheet Metal & Air Conditioning Industry
1900 L Street, N. W., Suite 405, Washington, D. C. 20036 Attn: J. R. Olejnicza

Welder Name Kenneth Gibson S. S. 847-28-0161 Stamp No. 44

Welding Process SMAW

Position (For vertical weld state whether upward or downward) Overhead & Horizontal Grooves
(For Plate: Flat, horizontal, vertical, or overhead; For Pipe: Axis of pipe vertical, horizontal fixed or horizontal rolled).

In accordance with Procedure Specification No. ASME Section IX 1974 Edition

Material – Specification SA36 to SA36 of P-No. 1 to P-No. 1

Diameter and Wall Thickness (if pipe) otherwise Joint Thickness 3/8" Plate

Thickness Range this qualifies 1/16" to 3/4"

FILLER METAL

Specification No. ASME SFA-5.1

Describe Filler Metal E7018

Is Backing Strip Used? Yes

– For Information Only –

Filler Metal Diameter and Trade Name 1/8" & 3/32" Lincoln Manual Flux for Submerged Arc or Gas for Inert Gas Shielded Arc Welding Multipass

Above Information by: PTL [X] Client [ ] Other

Preparation of specimen witnessed by PTL Yes [X] No [ ]

GUIDED BEND TEST RESULTS

Overhead — TYPE AND FIGURE NO.	RESULT	Horizontal — FIGURE NO.	RESULT
4G Face Bend	PASSED	2G Face Bend	PASSED
4G Root Bend	PASSED	2G Root Bend	PASSED

Test Witnessed by PITTSBURGH TESTING LABORATORY Test No. 1811

per J. Kalman

Results of tests (do) (~~do not~~) meet requirements of AMERICAN SOCIETY OF MECHANICAL ENGINEERS, BOILER

Remarks AND PRESSURE VESSEL CODE, SECTION IX, 1974 EDITION
PLUS ADDENDA THROUGH SUMMER, 1976

PITTSBURGH TESTING LABORATORY

[signature]

CERTIFICATE

OF

TEST AND APPROVAL OF WELDING PROCESS

AND

QUALIFICATION OF OPERATOR OF WELDING EQUIPMENT

PITTSBURGH TESTING LABORATORY, has witnessed the welding and testing of test specimens welded by an employee of

National Training Fund
for the Sheet Metal & Air Conditioning Industry
1900 L Street, N. W., Suite 405
Washington, D. C.
in accordance with

American Welding Society
Structural Welding Code D1.1-75

Welding Operator Kenneth Gibson SS# No. 347-28-0161

Welding Process Shielded Metal Arc

Operator Tested

This is to certify that the Welding Technic used in this test and described in SPECIFICATIONS FOR WELDING PROCESS No. PG-4690 and the results of the test given in PHYSICAL TEST REPORT No. 772675 complied with the requirements of the above code within the following limitations.

Maximum Plate or Wall Thickness 3/4" Max.*

Minimum Plate or Wall Thickness Not Limited

Welding Positions Flat, OH & Horiz.

Other Limitations Fillet & Groove
*Fillet Not Limited

Remarks AWS A5.1 Electrode

No.

Order No. PG-4690

File No.

Approved 2/7/77

PITTSBURGH TESTING LABORATORY

By Earl Gallagher
DIRECTOR

PITTSBURGH TESTING LABORATORY

ESTABLISHED 1881

PITTSBURGH, PA.

AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS, AND AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS OR EXTRACTS FROM OR REGARDING OUR REPORTS IS RESERVED PENDING OUR WRITTEN APPROVAL

Lab No. 772675

Order No. PG-4699

Date 2/7/77

PHYSICAL TEST REPORT OF WELDER PERFORMANCE QUALIFICATION TESTS

Client: National Training Fund, for the Sheet Metal & Air Conditioning Industry

1900 L Street, N. W., Suite 405, Washington, D. C. 20036 Attn: J. R. Olejnic

Welder Name Kenneth Gibson S. S. No. 347-28-0161 Stamp No. 44

Welding Process SMAW

Position (For vertical weld state whether upward or downward) Overhead & Horizontal Grooves
(For Plate: Flat, horizontal, vertical, or overhead; For Pipe: Axis of pipe vertical, horizontal fixed or horizontal rolled).

In accordance with Procedure Specification No. AWS D1.1-75

Material – Specification A36 to A36 of P-No. to P-No.

Diameter and Wall Thickness (if pipe) otherwise Joint Thickness 3/8" Plate

Thickness Range this qualifies 3/4" Maximum

FILLER METAL

Specification No. AWS A-5.1

Describe Filler Metal E7018

Is Backing Strip Used? Yes

– For Information Only –

Filler Metal Diameter and Trade Name 1/8" & 3/32" Flux for Submerged Arc or Gas for Inert Gas Shielded Arc

Lincoln Manual Welding Multipass

Above Information by: PTL ☒ Client ☐ Other

Preparation of specimen witnessed by PTL Yes ☒ No ☐

GUIDED BEND TEST RESULTS

Overhead: TYPE AND FIGURE NO.	RESULT	Horizontal: FIGURE NO.	RESULT
4G Face Bend	PASSED	2G Face Bend	PASSED
4G Root Bend	PASSED	2G Root Bend	PASSED

Test Witnessed by PITTSBURGH TESTING LABORATORY. Test No. 1811

per J. Kalman

Results of tests (do) (~~do not~~) meet requirements of AMERICAN WELDING SOCIETY

Remarks STRUCTURAL WELDING CODE D1.1-75

PITTSBURGH TESTING LABORATORY

By [signature]

HARVEY (ED) E. ENTREKIN

POSITION	Contracts Lead Office Engineer
EDUCATION	Electrical Engineering, Auburn University Electrical Engineering, Georgia Institute of Technology Course in Pneumatic and Hydraulic Controls, Air & Hydraulics Engineering
SUMMARY	1-1/2 years: Lead contract administrator 10 months: Lead mechanical engineer 1-1/2 years: Lead nuclear steam supply system field engineer 14 months: Assistant subcontract field engineer 6-1/2 years: Corporate president 1 year: Salesperson, manager of sales and production 3 years: Project manager/chief engineer 2 years: Project engineer 5 years: Designer/draftsman

EXPERIENCE

Mr. Entrekin is currently contracts lead office engineer assigned to the Midland nuclear jobsite. He is responsible for supervising a staff of contract administrators, commercially administering 10 subcontracts in the subcontracts department. He assumes lead responsibility in interfacing with the client, finance and accounting, and procurement on commercial matters.

Prior to this position, Mr. Entrekin was a lead mechanical engineer at the Midland jobsite. He supervised the subcontract field engineers on the heating, ventilating, and air conditioning; condenser; and nuclear steam supply system subcontracts. He also represented the subcontracts department in daily schedule meetings and implemented the department's systems turnover plan.

As a lead nuclear steam supply system (NSSS) engineer for Midland, Mr. Entrekin was responsible for the administration of a $50 million NSSS subcontract, including its commercial and technical aspects. He interfaced with the client and the quality

assurance organization. Earlier, as assistant lead NSSS engineer, Mr. Entrekin was responsible for monitoring the field activities of Babcock & Wilcox Construction Company.

Prior to this assigment, Mr. Entrekin was assistant and, later, lead subcontract field engineer in Avoca, Michigan.

Prior to joining Bechtel, Mr. Entrekin served as president to Gas Systems, Inc., in Dalton, Georgia. The organization designed and installed standby plants to be activated in the event of natural gas shutoffs.

Previously, Mr. Entrekin was president of Apex Machinery, Inc., in Dalton, Georgia. He took over total responsibilities for the company.

Earlier, Mr. Entrekin was self employed as a freelance salesperson of fabricated steel, automated machinery, and air pollution control equipment.

In his first association with Apex Machinery, Inc., Mr. Entrekin was manager of sales and production. He took responsibility for creating a new product line, training employees, and managing sales, production, and scheduling.

Previously, Mr. Entrekin served as president of his own research and development company, Seeco, Inc. The company specialized in automated control panels and specialty coatings.

In his nine-year association with International Incinerators, Inc. (I.I.I.), in Atlanta, Mr. Entrekin began as a draftsman responsible for mechanical equipment and architectural plant layout shop drawings. He later advanced to systems designer.

Following this, Mr. Entrekin was a project engineer for I.I.I. with lead responsibility for the design and implementation of an innovative combination chemical and solid waste disposal plant for 3M Company. He later advanced to project manager/chief engineer, with total responsibility for design and all contracts with I.I.I. clients. He oversaw five projects worth approximately $15 million from the development and cost estimate stages through completion and startup.

Earlier, Mr. Entrekin was a draftsman for Franklin Aluminum Company in Franklin, Georgia and Jervis B. Webb Company in Atlanta.

JOB DESCRIPTIONS

Contracts Lead Office Engineer

Provides administrative and technical support for the field contracts administrator and is responsible for the following:

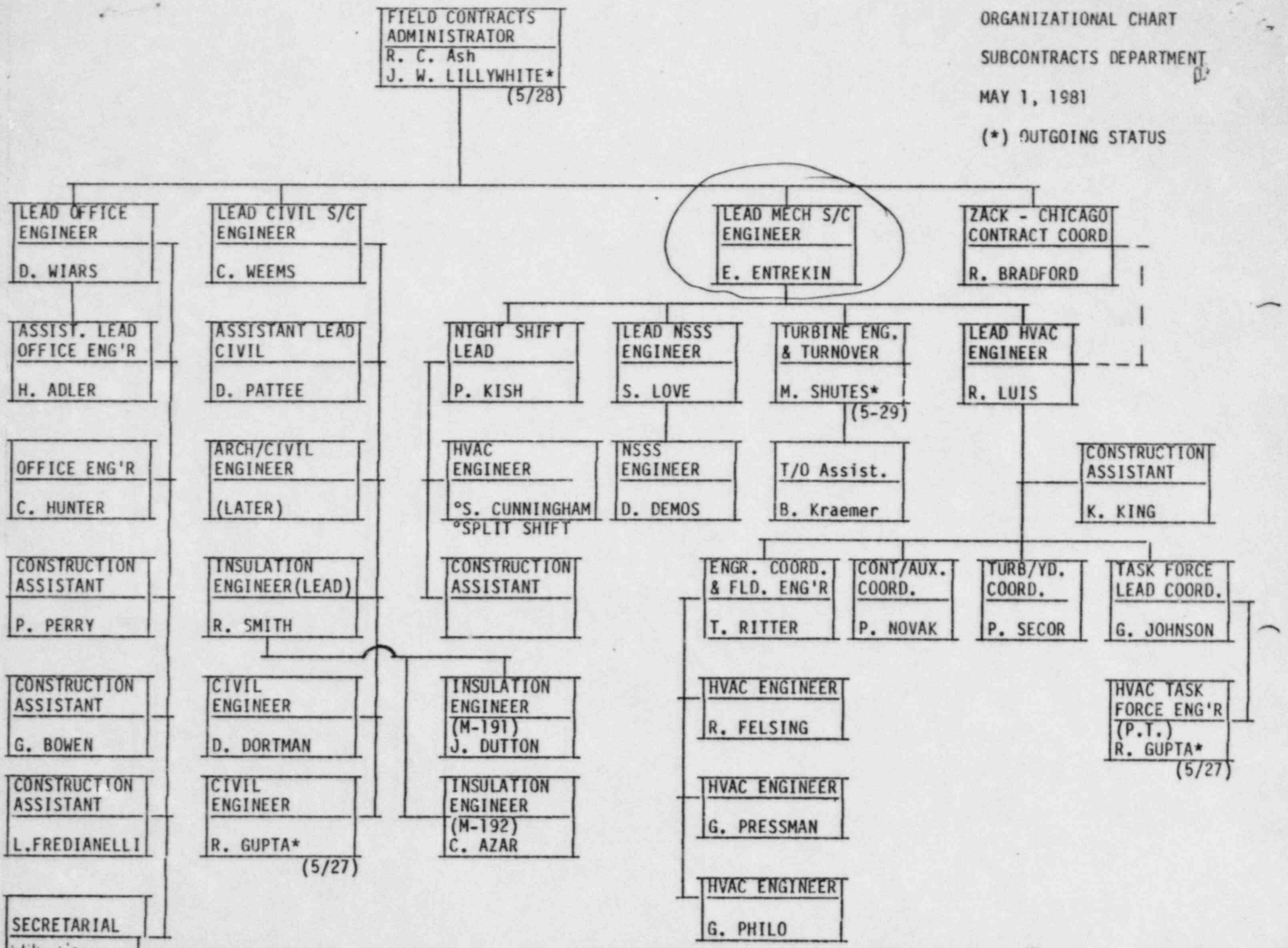
1. Provides operational direction to the office engineers
2. Maintains documentation of contract compliance records
3. Establishes and assures compliance with office routines and procedures including reports, logs, registers, and files.
4. Assists in processing and resolution of change orders, amendments, backcharges, claims, progress payments, etc
5. Assembles and prepares required reports
6. Supervises support services including document control, clerical, and secretarial within the contacts section

ORGANIZATIONAL CHART

SUBCONTRACTS DEPARTMENT

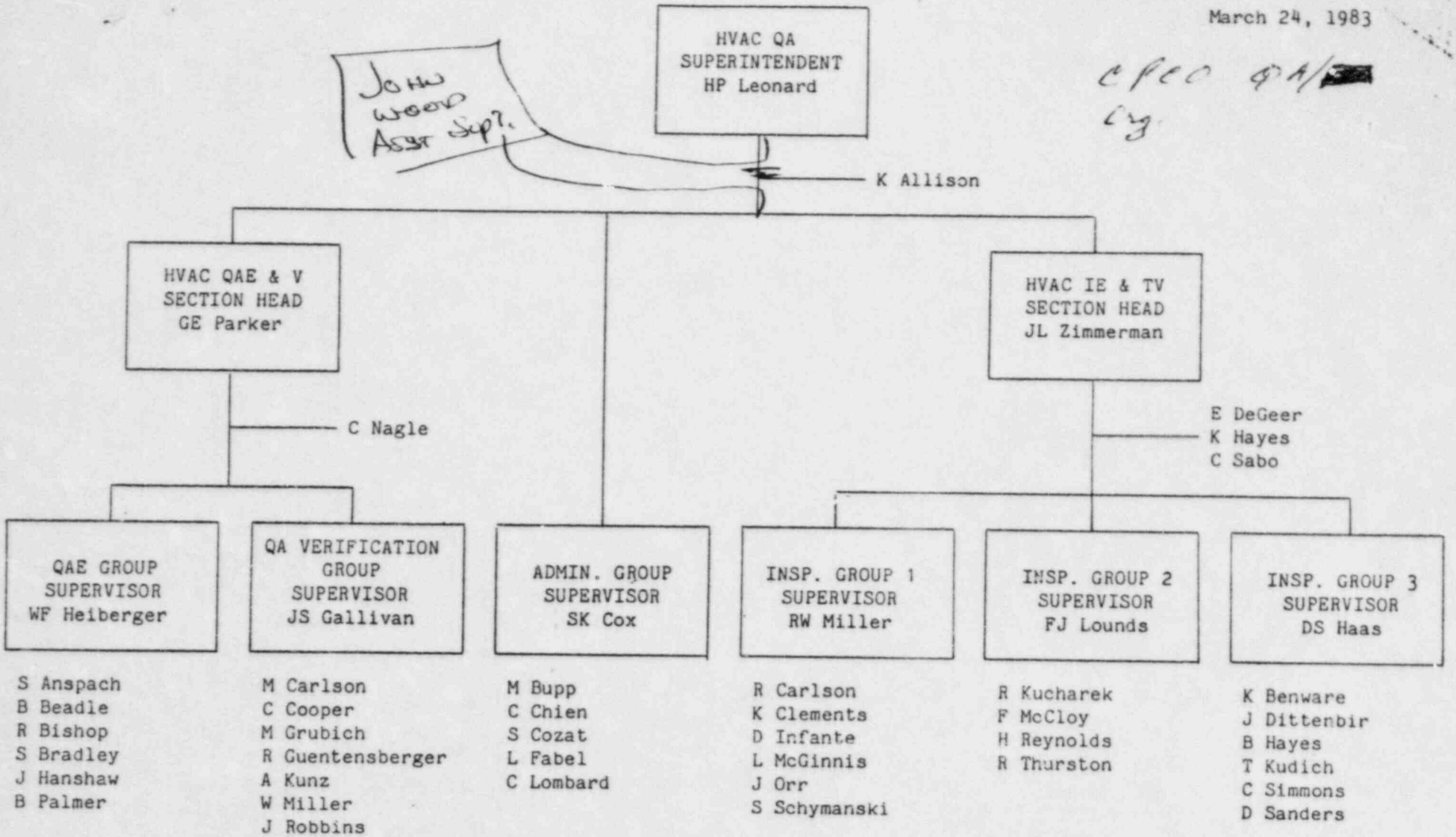
MAY 1, 1981

(*) OUTGOING STATUS



March 24, 1983

cfec QA/[redacted]
cy



S Anspach
B Beadle
R Bishop
S Bradley
J Hanshaw
B Palmer

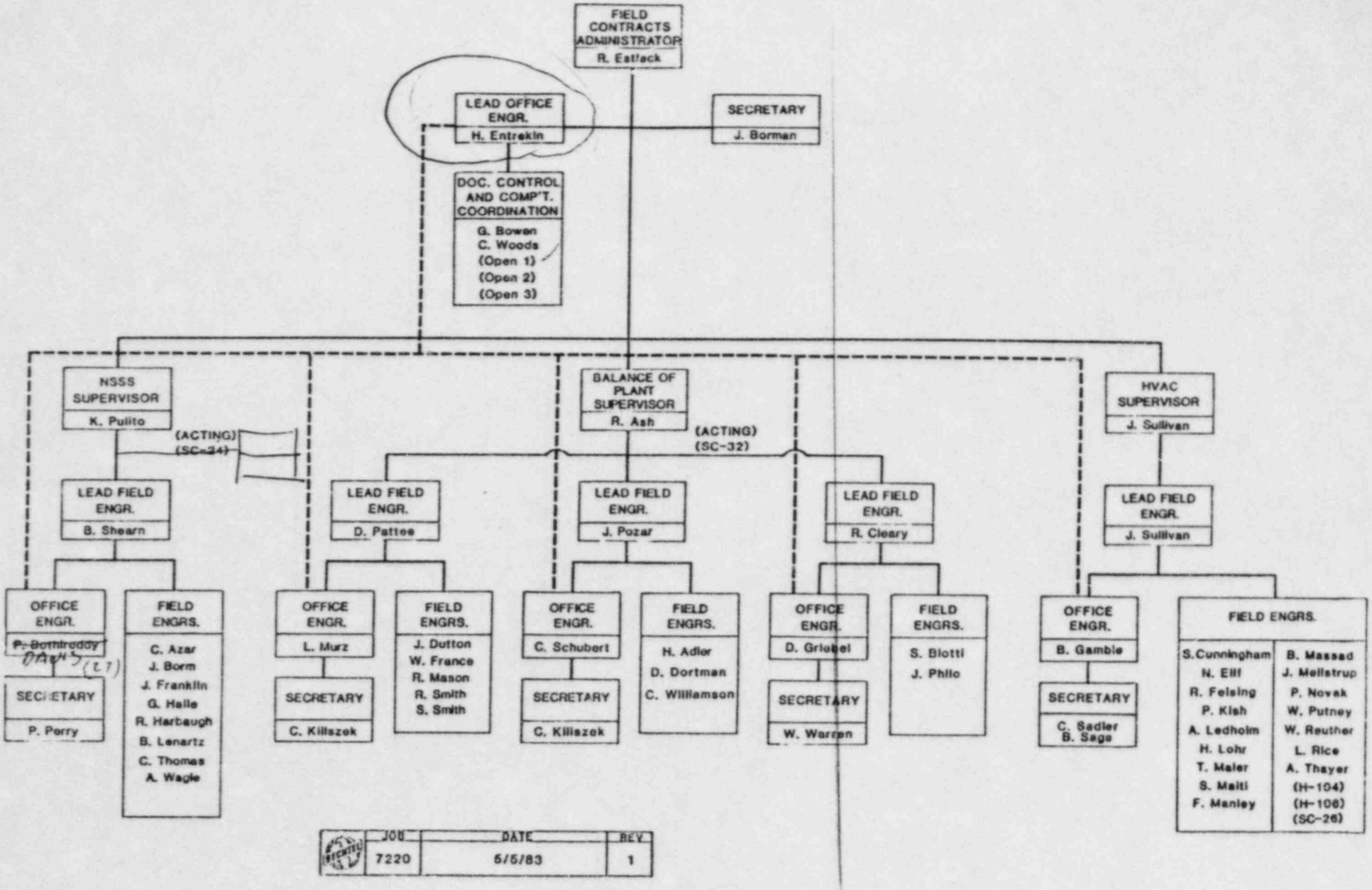
M Carlson
C Cooper
M Grubich
R Guentensberger
A Kunz
W Miller
J Robbins
W Stephens
T Tate
R Wenzel
J Burruss
T Johnson
D Miller

M Bupp
C Chien
S Cozat
L Fabel
C Lombard

R Carlson
K Clements
D Infante
L McGinnis
J Orr
S Schymanski

R Kucharek
F McCloy
H Reynolds
R Thurston

K Benware
J Dittenbir
B Hayes
T Kudich
C Simmons
D Sanders


FIELD CONTRACTS ADMINISTRATOR
R. Estlack
LEAD OFFICE ENGR.
H. Entrekin
SECRETARY
J. Borman
DOC. CONTROL AND COMP'T. COORDINATION
G. Bowen
C. Woods
(Open 1)
(Open 2)
(Open 3)
NSSS SUPERVISOR
K. Pulito
(ACTING) (SC-34)
BALANCE OF PLANT SUPERVISOR
R. Ash
(ACTING) (SC-32)
HVAC SUPERVISOR
J. Sullivan
LEAD FIELD ENGR.
B. Shearn
LEAD FIELD ENGR.
D. Pattee
LEAD FIELD ENGR.
J. Pozar
LEAD FIELD ENGR.
R. Cleary
LEAD FIELD ENGR.
J. Sullivan
OFFICE ENGR.
P. Bonthroddy
SECRETARY
P. Perry
FIELD ENGRS.
C. Azar
J. Borm
J. Franklin
G. Halle
R. Harbaugh
B. Lenartz
C. Thomas
A. Wagle
OFFICE ENGR.
L. Murz
SECRETARY
C. Killszek
FIELD ENGRS.
J. Dutton
W. France
R. Mason
R. Smith
S. Smith
OFFICE ENGR.
C. Schubert
SECRETARY
C. Killszek
FIELD ENGRS.
H. Adler
D. Dortman
C. Williamson
OFFICE ENGR.
D. Griebel
SECRETARY
W. Warren
FIELD ENGRS.
S. Biotti
J. Philo
OFFICE ENGR.
B. Gamble
SECRETARY
C. Sadler
B. Sage
FIELD ENGRS.
S. Cunningham
N. Elf
R. Felsing
P. Kish
A. Ledholm
H. Lohr
T. Maier
S. Maiti
F. Manley
B. Massad
J. Mellstrup
P. Novak
W. Putney
W. Reuther
L. Rice
A. Thayer
(H-104)
(H-106)
(SC-26)
JOB
7220
DATE
5/5/83
REV
1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

JUN 27 1983

Docket No. 50-329
Docket No. 50-330

Ms. Mary Sinclair
5711 Summerset Drive
Midland, MI 48640

Dear Ms. Sinclair:

This is in response to your letter of April 18, 1983, to me in which you convey the concerns you had received from an anonymous worker at the Midland plant. Your letter indicates the worker's principal concerns are (1) the lack of professional engineering registration of certain Bechtel employees performing work at the Midland site, and (2) the lack of qualified/trained people doing Zack design work.

Regarding item 1, the resident inspector reviewed the resumes of Messrs. Davis, Soderholm, Ash, and Entrokin and determined that they each have many years of experience in their respective fields of work. Region III, therefore, has been unable to establish any substantive basis for this concern. The matter of professional registration does not relate to any NRC requirement and we suggest it be pursued with the State of Michigan. We note that the Michigan Attorney General was on your list of individuals receiving a copy of your letter.

Regarding item 2, the NRC (Region III) is performing a special inspection of the Zack heating, ventilation, and air conditioning work at Midland. The NRC inspection will include a sample review of the Zack employees' qualifications and training. The findings of the inspection will be documented in an inspection report and a copy will be sent to you.

Your letter also identifies a concern that the worker had regarding difficulties a former welder had encountered at the site causing him to quit his job. The lack of specificity regarding this concern does not currently warrant an NRC investigation/special inspection. Should more specific information be provided in the future, the NRC will be glad to look into this matter.

8307050101 2pp.

We trust this has been responsive to your concerns.

Sincerely,

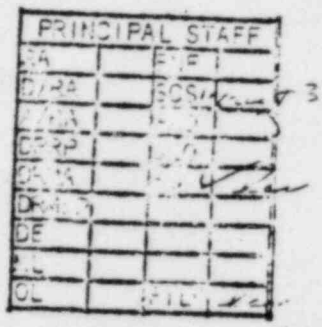
Original signed by
James G. Keppler

James G. Keppler
Regional Administrator

cc w/ltr dtd 4/18/83:
Attorney General Frank Kelley
Senator Carl Levin
Senator D. Riegle
Congressman D. Albosta
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
The Honorable Charles Bechhoefer, ASLB
The Honorable Jerry Harbour, ASLB
The Honorable Frederick P. Cowan, ASLB
The Honorable Ralph S. Decker, ASLB
William Paton, ELD
Michale Miller
Ronald Callen, Michigan
Public Service Commission
Myron M. Cherry
Barbara Stamiris
Wendell Marshall
Colonel Steve J. Gadler (P.E.)
Howard Levin, TERA
Billie P. Garde, Government
Accountability Project
Lynne Bernabei, Government
Accountability Project

bcc w/ltr dtd 4/18/83:
R. L. Spessard

OFFICE	RIII						
SURNAME	Gardner/ls	Harrison	Warnick	Strasma	Lewis	Davis	Keppler
DATE	6/24/83	6/24/83	6/24/83		6/24	6/24	6/24/83



5711 Summerset Drive
Midland, MI 48640
April 18, 1983

Mr. James Keppler, Regional Administrator
Nuclear Regulatory Commission, Region III
Office of Inspection and Enforcement
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Mr. Keppler:

Over the past couple of months, a man, who used to work on the Midland nuclear plant, has called me several times to give me information that he believes is very important to relay, not only to you, but to our Attorney-General Frank Kelley.

He will not provide an affidavit to the Government Accountability Project on these matters because he does not believe his anonymity can be adequately protected. He is now working for a Midland subcontractor, as I understand it.

His concern is about the many unqualified people there are at the plant site in jobs of critical importance to safety.

Since I notice in the testimony of Ron Cook, the resident inspector, his frequent mention of poor installation and even his requests to see the qualifications of workers because of poor workmanship, I believe there may be merit in these facts that I have been given over the phone or sent in the mail.

He gave me names of people he worked with who were not qualified for their assignments. They all worked for Bechtel or Bechtel subcontractors. These include: Leo Davis--no Michigan engineering registration and no field experience who worked on systems requiring engineering. He's not sure he has a degree of any kind; Dick Soderholm--no Michigan engineering registration, little field experience, worked in procurement; Clark Ash--has a degree (not sure in what), no Michigan engineering registration, little field experience, worked in procurement; Ed Entrokin--has no degree, is not registered as engineer in Michigan, field experience amounts to 2 or 3 years with Bechtel. The sub-contract department under Ed Entrokin had design authority--the balance of sub-contracts did not have design authority.

According to my informant, engineering design authority was delegated to Zack by Bechtel. Zack also did not have qualified people for design work they were doing. People without adequate training were designing duct work, or pipe hangers and brackets. Not a Zack responsibility.

8307050111
11 pp.

Soils work was subcontracted by Bechtel.

Also, he stated that someone by the name of Cannoni was the subcontractor for soil compaction and he was also given subcontract for part of the underpinning of sinking buildings.

He claims that all work on any construction project beyond a certain limited size must be done as a Michigan registered engineer or architect.

He gave me the following citation from Michigan Compiled Laws 338.551--Architects, Engineers, Surveyors, Article 20, Act 299, Public Acts of 1980 p. 902-7, defines the role of licensed engineers and architects--does not give any exception to Federal activity. Any building structure must be designed, planned and materials and supplies inspected under direct supervision of a licensed engineer.

He told me that a very good welder quit the project recently because the scheduling was so erratic. One day he would have an apprentice assistant, the next day a journeyman. He was forced to repair continually what was done. He said the Bechtel management here was the poorest he had seen anywhere and he couldn't take it anymore.

The informant also sent me a sketch of management responsibility, rate and pay schedule of contractors for Bechtel and a copy of Article 20, Act 299, PA of 1980 on Architechts, Engineers and Surveyors. These materials are enclosed.

I hope your office will investigate these matters to protect the public health and safety of the people of this area.

Yours sincerely,

Mary Sinclair

Mary Sinclair

cc: Attorney-General Frank Kelley
Senator Carl Levin
Senator Don Riegle
Congressman Don Albosta

5711 Summerset Drive
Midland, MI 48640
April 18, 1983

Attorney-General Frank Kelley
525 West Ottawa
Law Building, 7th Floor
Lansing, MI 48913

Dear Attorney-General Frank Kelley:

Enclosed is a letter to Mr. James Keppler, director of Region III of the Nuclear Regulatory Commission, in which I describe certain facts that were disclosed to me on the phone by a person who prefers to remain anonymous. He also sent certain materials and supporting items in the mail which are also enclosed.

I believe your office has the responsibility to enforce the law requiring Michigan registration of engineers, etc. responsible for design, construction and materials of construction projects.

I hope you will give this matter your attention.

Yours sincerely,

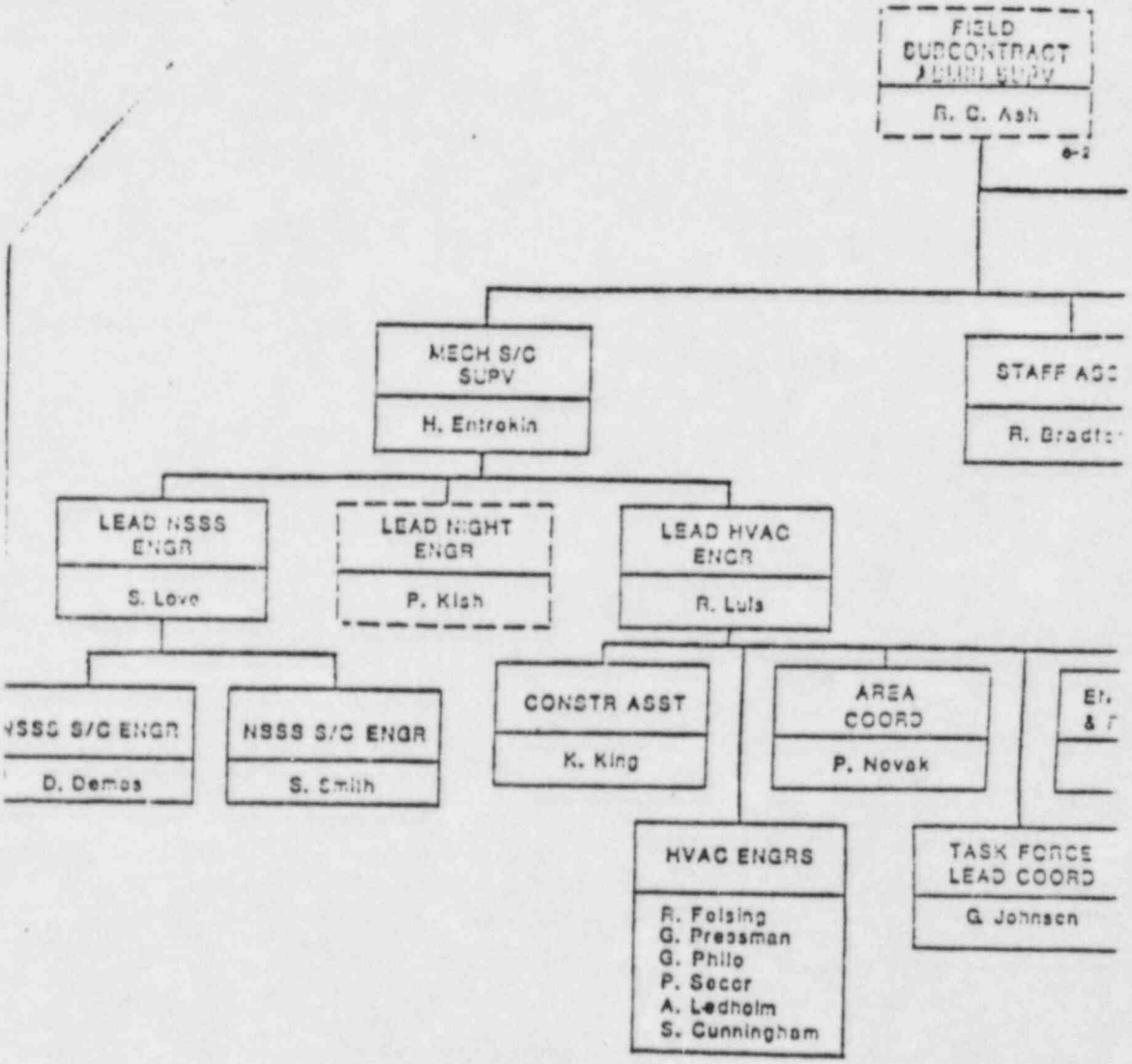
Mary Sinclair

Mary Sinclair

Enclosures

L. E. Davis

R. Soderholm



	7220	G-2 SUBCONTRACTS	7

2. COMPENSATION

2.1 PROFESSIONAL SERVICES

Contractor shall be paid for service in accordance with the following rate schedule for all time spent on the project by professional and technical personnel of the designated classification accepted by Bechtel.

Classification	Straight Time/Hr	Overtime/Hr
Principal	$70.00	$70.00
Associate Principal	$66.00	$66.00
Senior Associate	$64.00	$64.00
Associate	$62.00	$62.00
Engineering Supr.	$60.00	$75.00
Senior Lead Engineer	$58.00	$72.50
Senior Engineer	$54.00	$67.50
Staff Engineer/	$52.00	$65.00
~~Senior Technician Eng.~~	~~$46.00~~	~~$57.50~~
Assistant Engineer	$42.00	$52.50
Senior Draftsman	$40.00	$50.00
Draftsman/Technician	$38.00	$47.50
Junior Draftsman	$32.00	$40.00
Technical Typist/ Engineering Aide	$22.00	$27.50
Secretary	$13.00	$16.25

* per diem ?
* r.t. airfare ?
* BPC overhead ?
* BPC profit ?

The rates include salary, overhead, fee, benefits, vacation allowance, sick leave, holiday pay, taxes, and insurance, and all other associated manhour costs.

Specified rates and classification for each Contractor personnel assigned shall be submitted in writing to the authorized Bechtel representative. Bechtel will be notified prior to changing classification of any Contractor personnel above Senior Draftsman.

2.1.1 Contractor will only be reimbursed for work actually performed. Contractor personnel will not be reimbursed for days not worked, except as specified in paragraph 2.1.4 below, including, but not limited to, sick leave, vacations, holidays and travel time.

All work assignments by Contractor must be authorized in advance by Bechtel. Contractor will not be reimbursed for services rendered which are not authorized. Contractor will submit weekly time worked verification for acceptance by designated Bechtel Representative.

U.S. Dollar Payroll

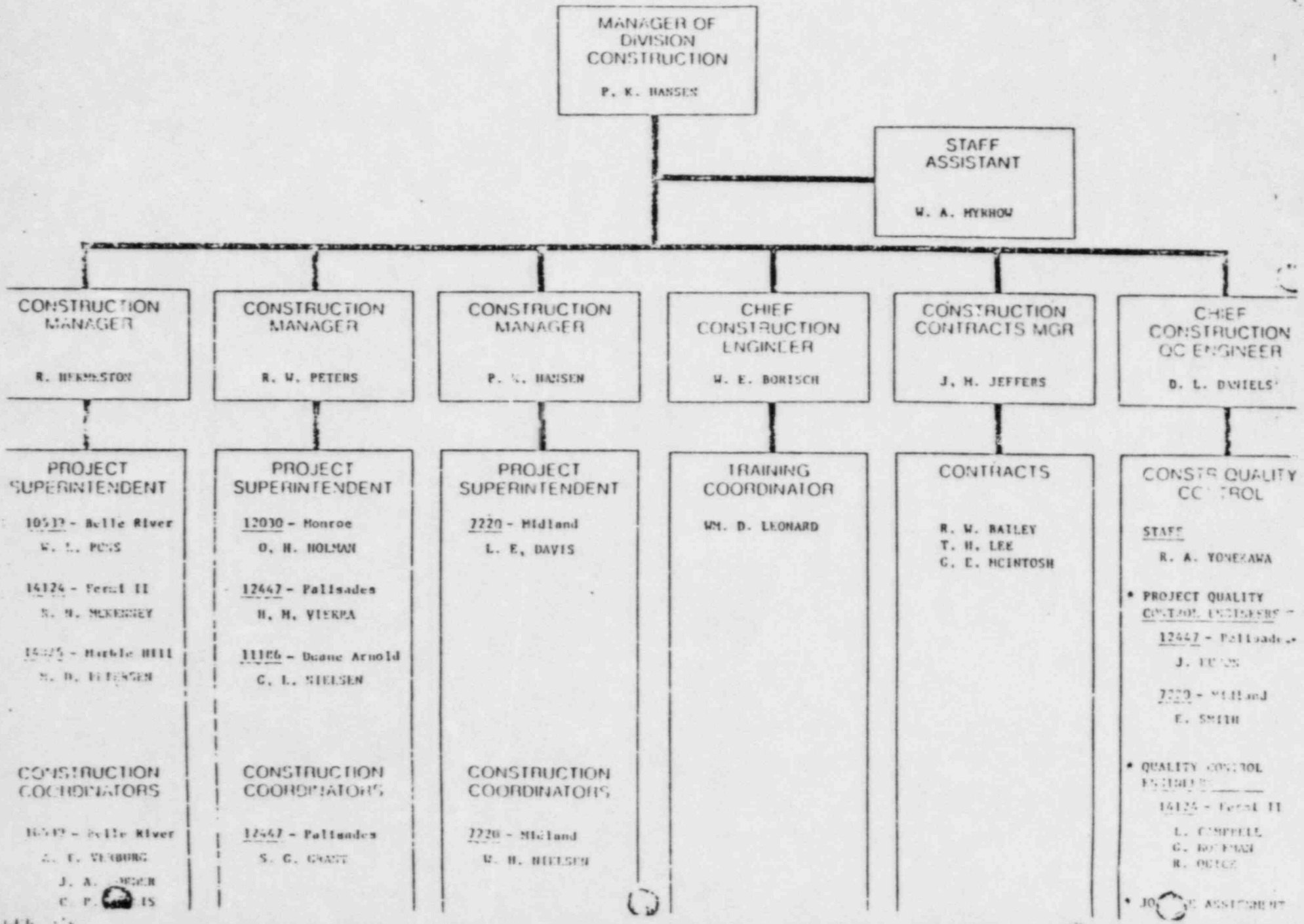
Effective: 1/3/81

Supersedes revision dated 7/5/80

Salary Grade	1st Quartile Minimum	1st Quartile 25%	2nd Quartile Midpoint	3rd Quartile 75%	4th Quartile Maximum
21	$ 1,305	$ 1,500	$ 1,695	$ 1,890	$ 2,090
22	1,460	1,680	1,895	2,115	2,335
23	1,640	1,890	2,135	2,380	2,625
24	1,865	2,145	2,425	2,705	2,985
25	2,135	2,455	2,775	3,095	3,415
26	2,440	2,810	3,175	3,540	3,905
27	2,780	3,200	3,615	4,035	4,450
28	3,095	3,560	4,025	4,490	4,955
29	41,100 (3,425)	47,200 (3,938)	53,400 (4,450)	59,600 (4,967)	65,800 (5,467)
30	45,900 (3,825)	52,800 (4,400)	59,700 (4,975)	66,600 (5,550)	73,400 (6,117)
31	51,500 (4,292)	59,300 (4,942	67,000 (5,584)	74,700 (6,225)	82,400 (6,867)
32	57,500 (4,792)	66,100 (5,509)	74,700 (6,225)	83,300 (6,942)	92,000 (7,667)

Note: Monthly equivalents in parentheses for salary grades 29-32.

CONSTRUCTION DEPARTMENT



ARTICLE 20

ACT 299: P.A. of 1980

Sec. 2001. As used in this article:

(a) "Architect" means a person who, by reason of knowledge of mathematics, the physical sciences, and the principles of architectural design, acquired by professional education and practical experience, is qualified to engage in the practice of architecture.

(b) "Firm" means a sole proprietorship, partnership, or corporation through which a person licensed under this article offers or provides a service to the public.

(c) "Land surveyor" means a person who, by reason of knowledge of law, mathematics, physical sciences, and techniques of measuring land acquired by professional education and practical experience, is qualified to engage in the practice of land surveying.

(d) "Person" means a natural person.

(e) "Person in responsible charge" means a person licensed under this article who determines technical questions of design and policy; advises the client; supervises and is in responsible charge of the work of subordinates; is the person whose professional skill and judgment are embodied in the plans, designs, plats, surveys, and advice involved in the services; and who supervises the review of material and completed phases of construction.

(f) "Practice of architecture" means professional services, such as consultation, investigation, evaluation, planning, design, or review of material and completed phases of work in construction, alteration, or repair in connection with a public or private structure, building, equipment, works, or project when the professional service requires the application of a principle of architecture or architectural design.

(g) "Practice of land surveying" means the surveying of an area for its correct determination, description, and conveyancing, or for the establishment or reestablishment of a land boundary and the plotting of land and subdivisions of land.

(h) "Practice of professional engineering" means professional services, such as consultation, investigation, evaluation, planning, design, or review of material and completed phases of work in construction, alteration, or repair in connection with a public or private utility, structure, building, machine, equipment, process, work, or project, when the professional service requires the application of engineering principles or data.

(i) "Principal" means a sole proprietor, partner, or the president, vice-president, secretary, treasurer, or director of a corporation.

(j) "Professional engineer" means a person who, by reason of knowledge of mathematics, the physical sciences, and the principles of engineering, acquired by professional education and practical experience, is qualified to engage in the practice of professional engineering.

(k) "Services" means professional service offered or provided by an architect in the practice of architecture, a professional engineer in the practice of professional engineering, or a land surveyor in the practice of land surveying.

Sec. 2002. (1) The boards of architects, of professional engineers, and of land surveyors are created.

(2) The board of architects consists of 5 architects, 1 professional engineer who is a member of the board of professional engineers, and 1 land surveyor who is a member of the board of land surveyors. Two members of the board shall represent the general public.

(3) The board of professional engineers consists of 5 professional engineers, 1 architect who is a member of the board of architects, and 1 land surveyor who is a member of the board of land surveyors. Two members of the board shall represent the general public.

(4) The board of land surveyors consists of 5 land surveyors, 1 professional engineer who is a member of the board of professional engineers, and 1 architect who is a member of the board of architects. Two members of the board shall represent the general public.

(5) Of the initial members of the board of architects, the terms of 3 of the members, including 2 of the members who are licensed architects and 1 of the members representing the general public, shall be 4 years; the term of 1 of the members who is a licensed architect shall be 3 years; the term of 1 of the members who is a licensed architect shall be 2 years; and the terms of 2 of the members, including 1 of the members who is a licensed architect and 1 of the members of the general public, shall be 1 year. The term of the member who is a licensed professional engineer shall coincide with that member's term on the board of professional engineers. The term of the member who is a licensed land surveyor shall coincide with that member's term on the board of land surveyors.

(6) Of the initial members of the board of professional engineers, the terms of 3 of the members, including 2 of the members who are licensed professional engineers and 1 of the members representing the general public, shall be 4 years; the term of 1 of the members who is a licensed professional engineer shall be 3 years; the term of 1 of the members who is a licensed professional engineer shall be 2 years; and the terms of 2 of the members, including 1 of the members who is a licensed professional engineer and 1 of the members of the general public shall be 1 year. The term of the member who is a licensed architect shall coincide with that member's term on the board of architects. The term of the member who is a licensed land surveyor shall coincide with that member's term on the board of land surveyors.

(7) Of the initial members of the board of land surveyors, the terms of 3 of the members, including 2 of the members who are licensed land surveyors and 1 of the members representing the general public, shall be 4 years; the term of 1 of the members who is a licensed land surveyor shall be 3 years; the term of 1 of the members who is a licensed land surveyor shall be 2 years; and the terms of 2 of the members, including 1 of the members who is a licensed land surveyor and 1 of the members of the general public, shall be 1 year. The term of the member who is a licensed professional engineer shall coincide with that member's term on the board of professional engineers. The term of the member who is a licensed architect shall coincide with that member's term on the board of architects.

(8) A licensee who serves on more than 1 board created under this article, and who resigns, is disabled, or is removed for cause by the governor from the board under which he or she is licensed, shall no longer represent that board on any other board created under this article.

Sec. 2003. A joint meeting of the boards created by this article shall be held at least once annually at a time and place determined by the department. Two or more of the boards created by this article may meet jointly at the call of the chairperson of a board created by this article.

Sec. 2004. (1) An applicant for examination for licensure under this article shall be of good moral character and shall have had not less than 8 years of professional experience in architectural, engineering, or land surveying work satisfactory to the appropriate board, including not more than 6 years of education satisfactory to the appropriate board and shall meet the following educational requirements:

(a) For architecture, a first professional degree or further degree in architecture. However, until July 1, 1984, a 4-year, preprofessional baccalaureate degree shall be accepted in lieu of the first professional degree.

(b) For professional engineering, a baccalaureate degree in engineering acceptable to the board of professional engineers or a related degree with courses acceptable to the board.

(c) For land surveying, a degree in land surveying or a related degree with land surveying courses acceptable to the board of land surveyors.

(2) An applicant meeting the appropriate requirements of subsection (1) who files an application for examination for licensure, upon payment of the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979, as amended, being section 338.2213 of the Michigan Compiled Laws shall be granted an examination for licensure as an architect, professional engineer, or land surveyor.

(3) An examination for licensure under this article as an architect, a professional engineer, or land surveyor shall be held at least once a year at a time and place determined by the department.

(4) An applicant for examination for licensure who successfully completes studies required for the granting of a degree required by subsection (1) may take a part of the examination which tests the applicant's understanding of the theory pertaining to his or her profession. An applicant who passes that part of the examination is not required to repeat that part of the examination regardless of when the applicant takes the examination required by subsection (5).

(5) An applicant who satisfies the requirements of subsection (1) shall take the examination which tests the applicant's qualifications to practice as an architect, professional engineer, or land surveyor.

(6) An applicant for examination for licensure who fails an examination required by this section may apply for reexamination 6 months after receiving notice of his or her failure. An applicant for reexamination for licensure under this subsection shall pay the fee prescribed by section 13 of Act No. 152 of the Public Acts of 1979, as amended.

(7) Notwithstanding section 316(3), an alternative form of testing shall only be given to a person with a mental or physical handicap which tests the applicant's understanding of the theory and the applicant's qualifications to practice as an architect, professional engineer, or land surveyor as required in this section.

Sec. 2005. The department shall mail written notice to an applicant of the applicant's grades on each part of an examination. On written request by an applicant filed with the department within 30 days after notice of the applicant's grades has been mailed to the applicant, the department shall mail to the applicant within a reasonable time the comments of the board on those parts of the examination which the applicant failed to pass.

Sec. 2006. (1) An application for licensure under this article shall contain [illegible] showing the applicant's education and a detailed verifiable summary of the applicant's [illegible] work, and shall contain not less than 5 references, of whom 3 or more shall be licensees in the profession for which the applicant is seeking licensure who have personal knowledge of the applicant's professional experience.

(2) A license shall be issued after the applicant has passed the examination prescribed in section 2004 (5) and has paid the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979. If the department denies the issuance of a license to an applicant, the fee deposited shall be retained as an application fee.

Sec. 2007. A licensee, upon being licensed, shall obtain a seal authorized by the appropriate board and bearing the licensee's name and the legend indicating either "licensed architect", "licensed professional engineer", or "licensed land surveyor". However, a seal existing on the effective date of this article with the legend "registered architect", "registered professional engineer", or "registered land surveyor" is acceptable if a seal is required under state law. A plan, specification, plat, or report issued by a licensee shall be sealed when filed with a public authority. A document shall not be sealed after the license of the licensee named on the document has expired or is suspended or revoked unless the license is renewed, reinstated, or reissued.

Sec. 2008. (1) A plan, plat, drawing, map, and the title sheet of specifications, an addendum, bulletin, or report or, if a bound copy is submitted, the index sheets of a plan, specification, or report, if prepared by a licensee and required to be submitted to a governmental agency for approval or record, shall carry the embossed or printed seal of the person in responsible charge.

(2) If the overlapping of the professions of architecture and engineering is involved in a project, a licensed architect or licensed professional engineer who seals the plans, drawings, specifications, and reports may perform services in the field of the other practice if the services are incidental to the architectural or engineering project as a whole.

(3) A licensee shall not seal a plan, drawing, map, plat, report, specification, or other document not prepared by the licensee or under supervision of the licensee as the person in responsible charge.

Sec. 2009. A license granted under this article shall be renewed on a date determined by the department. A license issued under this article shall be renewed upon payment of the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979 and a demonstration of continuing professional competence as shall be required and evaluated by the board.

Sec. 2010. (1) A firm may engage in the practice of architecture, professional engineering, or land surveying in this state, if not less than 2/3 of the principals of the firm are licensees.

(2) However, nonlicensed principal and the principal's firm shall apply for and receive an approval from the department to engage in the practice of architecture, professional engineering, or land surveying, if the conduct of the firm and its principals comply with rules promulgated by the department.

(3) Upon request by the department, a firm shall report to the department the names and addresses of its principals, persons in responsible charge, unlicensed principals, and any other information the department considers necessary.

(4) A firm shall employ a person in responsible charge in the field of professional service offered at each place of business in this state where a service is offered by the firm, except at a field office which provides only a review of construction.

Sec. 2011. (1) The state or a county, city, township, village, school district, or other political subdivision of this state shall not engage in the construction of a public work involving architecture or professional engineering unless all of the following requirements are met:

(a) The plans and specifications and estimates have been prepared by a licensed architect or licensed professional engineer.

(b) The review of the materials used and completed phases of construction is made under the direct supervision of a licensed architect or licensed professional engineer.

(c) Each survey of land on which the public work has been or is to be constructed is made under the supervision of a licensed land surveyor.

(2) This section does not apply to a public work for which the contemplated expenditure for the completed project is less than $15,000.00.

Sec. 2012. The following persons are exempt from the requirements of this article:

(a) A professional engineer employed by a railroad or other interstate corporation, whose employment and practice is confined to the property of the corporation.

(b) A designer of a manufactured product, if the manufacturer of the product assumes responsibility for the quality of the product.

(c) An owner doing architectural, engineering, or surveying work upon or in connection with the construction of a building on the owner's property for the owner's own use to which employees and the public are not generally to have access.

(d) A person not licensed under this article who is planning, designing, or directing the construction of a residence building not exceeding 3,500 square feet in calculated floor area. As used in this subdivision and section 2014(e), "calculated floor area" means that portion of the total gross area, measured to the outside surfaces of exterior walls intended to be habitable, including a heater or utility room, but not including a crawl space; an unfinished and nonhabitable portion of a basement or attic; or a garage, open porch, balcony, terrace, or court.

(e) A person who is licensed to engage in the practice of architecture, professional engineering, or land surveying in another state while temporarily in this state to present a proposal for professional services.

Sec. 2013. The department, upon application, and the payment of the fee prescribed in section 13 of Act No. 152 of the Public Acts of 1979, as amended, shall issue a license to a person who holds an appropriate certificate of qualification or registration issued to the person by proper authority of a board of registration examiners of another state or national council acceptable to the department and the board, if the requirements for the registration of architects, professional engineers, or land surveyors under which the certificate of qualification or registration was issued are determined to be equivalent by the board. The determination shall be made by the appropriate board. A board under this article shall not issue a temporary license as provided under section 213.

Sec. 2014. A person is subject to the penalties set forth in article 6 who commits 1 of the following:

(a) Uses the term "architect", "professional engineer", "land surveyor", or a similar term in connection with the person's name unless the person is licensed in the appropriate practice under this article.

(b) Presenting or attempting to use as the person's own the license or seal of another.

(c) Attempting to use an expired, suspended, or revoked license.

(d) Using the words "architecture", "professional engineering", "land surveying", or a similar term in a firm name without authorization by the appropriate board.

(e) Submitting to a public official of this state or a political subdivision of this state for approval, a permit or a plan for filing as a public record, a specification, a report, or a land survey which does not bear 1 or more seals of a licensee as required by this article. This subdivision does not apply to a public work costing less than $15,000.00 or a residential building containing not more than 3,500 square feet of calculated floor area.

Bechtel HVAC Specification No. 151A(Q)

Materials Requirements

The below listed materials are referenced and approved by use in the Midland HVAC System.

1. Carbon Sheet Steel

   ASTM-A-526-71, A-527-71, A-366-72, A-607-75, Gr. 50 - G-90 coating 30 KSI min.

2. Stainless Sheet Steel

   ASTM A-240-304-2B-75A, 30 KSI min.

3. Carbon Steel Rod, Bar and Shaft Material

   ASTM A-108-73

4. Aluminum

   ASTM B-221-74, Alloy 3003/6063

5. Bronze B-255-70

6. Structural Steel Bar, Plate & Shape

   ASTM, A36-75, A572-77 Gr 70, A283-70 Gr A, 36 KSI Min.

7. Tubing

   ASTM A500-77 Gr B

8. Angle Iron

   2 1/2" x 2 1/2" x 1/4" and below A 575- Gr M1020

9. Carbon Steel Galvanized

   ASTM A123-72, later

10. Carbon Steel Hardware Galvanized

    ASTM A153-73, A164-71, (A165-71, Cdm Plated) B633-78

11. Unistrut Galvanized Sections

    A446-72 GrA, G-90 coating

12. Fittings Galvanized

    ASTM A573-73, Per A386-73

13. Nuts Galvanized

    ASTM A576-71, 1019 Per A153-73

14. Unistrut Springs Galvanized

    ASTM A227-74, Per 386-73

15. Carbon Steel Fasteners. Huck Bolts/Sheet Metal Screws

    ASTM, A325 Galvanized A307-74, per A563-762/307-74

    Substitute for 325 is A490-762 (only)

    Substitute for A307 are: A193-76, A354-76b, A449-76c, A490-762,
    A325

    ANSI B18.2.1-65 (CMTR)

16. Steep Pipe Black or Galvanized

ASTM A53-73/A120 seamless 36KSI min.

HVAC Material Sampling Program

Midland Nuclear Power Plant Units 1 & 2

The NRC sampling program to determine that materials conform to specification requirements will include the removal of 60 samples from the installed ductwork, hangers, and from stock materials at the fabrication shop and storage area.

Samples will be removed from the following safety related subsystems:

- Control Room
- Diesel Generator Building
- Service Water Building
- Auxiliary Building/Battery Room
- Fabrication Shop/Storage Area

Sample sizes will be as follows:

- Sheet steel 5" x 5"
- Structural shapes, bars, and tubing. Where possible, the sample size will be large enough for either a round or flat tensile specimen.

Sample testing will be performed by an independent laboratory in accordance with the material specification and funded by the NRC.

Control Room Samples:

5 duct samples of sheet steel

3 structural-angle samples from hangers

2 bolt samples 1/4"-1/2"

Diesel Generator Room

3 duct samples of sheet steel 20-22, 18 gauge, if available,

4 structural

3 bolts - 5/16" - 5/8" - 3/4"

Service Water Building

2 duct samples, sheet steel

6 structural steel (square pipe, channel, angle)

2 bolts 1/2" - 1" (A307)

Auxiliary Building/Battery Room

4 duct samples

4 structural steel

2 bolts 1/2" - 7/8"

Fab Shop

4 duct steel

2 structural

4 bolts - 3/8" - 1/2" - 5/8" - 3/4"

Midland U-1-2

ZACK - HVAC MATERIAL SAMPLING LIST

I. Control Room

Sample No.	ID No.	Traveler	Drawing	Duct piece
1.	209A	P4582	B25 Sh 3	Long. seam weld
2.	HGR 75A	F17525(w/weld)		3/8 X 3½ X 3½ (structural)
3.	231	P3730		Standing Seam Duct Piece
4.	33C	F-21555		Duct (Sheet Matl)
5.	HGR 88B	F9835		(Structural)
6.	HGR 21A			(Structural)
7.	61 & 62	F788		Duct Piece
8.	(Bolt 307	from end cap)		
9.	(Bolt 307	from end cap)		
10.	251	F17595		Duct Piece

II. Diesel Generator Bldg.

A. Bay 4

11.	29	F11061	Duct Piece
12.	63	F13735	Duct Piece

B. Bay 3

13.	115	F11075	Duct Piece
14.	102	F11230	3 - structurals
15.			
16.			

III. Service Water Bldg.

Sample No.	ID No.	Traveler	Drawing	Duct Piece
17.	HGR 4A	F2213		Structural
18.	HGR 2B	F16703		(2 X 2 X ¼ Square Tube) Structural
19.	93	F10349		Duct Piece
20.	86-5	FP553		Duct Piece
21.	HGR 18B	F14377		3 X 3 X ¼ Structural
22. & 23.	HGR 39A w/ ¼" Brim Plate 1"	F9991		3½ X 3½ X ¼ Structural
24.	HGR 36A	F14378		3 X 3 Structural
25.	77A	F12145	½Ø	Bolt
26.	76A	F12143	½Ø	Bolt

IV. Battery Room

A. Room 357 1D

27.	HGR 12A	F14911		1½ X 1½ Structural
28.	HGR 12A	F7246	B22 SH2	Duct Piece

B. Room 353 5D

29.	39	F7331		Duct Piece
30.	HGR 20A	F9530		Structural

C. Room 356

31.	3	P2360		Duct Piece
32.	HGR 8	F14196		Structural

V. Auxiliary Bldg.

A. Cable Chase E5.6

33.	HGR 4	F2507	22 SH 1B	1½X1½X¼ angle Structural
34.	9A	P4644		Duct Piece

B. Cable Chase W7.9

35.	HGR 25	F3755	V22 SH 2B	2X2X¼ corner knee brace

VI. Containment - Unit 2

36.	HGR 4	F15721		4X4X¼ Structural
37.	HGR 19	F7565		3X3 Structural
38.	HGR 10	F6130	V12 SH 2	4X4 Structural
39.	HGR 22	F17084	V15 SH 2	Structural

VII. Auxiliary Bldg. (Filter System)

40.	HGR 22	F19959		14 Tube Steel

VIII. Rod Issue Room

41. 42.	2 - Bolts 3/8 Ø
43. 44.	2 - Bolts 1/2 Ø
45. 46.	2 - Bolts 5/8 Ø

IX. Fabrication Shop

47.	855-8	13#
48.	935-5	9#

Fabrication Shop (cont)

49.	1163-2	5.4#			
50.	1018-1	6X4X¼ Tube			
51.	1937-1	1X1X⅛ Tube			
52.	C2410-5	5" I-Beam			
53.	1462-2	5/8X4			
54.	C1064	I-Beam			
55.	1687-3	½x2			
56.	C2560-5	1" Plate X 14½			
57.	2 pieces	186A	C01C	#720	18 gauge
58.	2 pieces	711	22 gauge		
59.	2 pieces	C2547-5	10 gauge		
60.	2 pieces	C2619-1	12 gauge		

X. Poseyville Laydown Area

A. Area V-25 Class I

61.	Stainless Steel	57	P3642	
62.	Stainless Steel	66	F-14202 2401 V25 SH1 QR-1	
63.	w/welds	T#F8792	127-SH3-3 #109	

B. Restock Class I

64.	152	F13738		
65.	250	F13749		
66.	40	T-F4613	V11 SH2	Corner w/weld
67.		F9863	V12 SH4	Seam Weld

Accepted HVAC equipment selected for system walk down at Midland:

V. Drawing	Item No.	Design Drawing
03-1	BD-006	M503-1
03-1	D-002	M503-1
03-1	D-009A	M503-1
03-1	D-016	M503-1
03-1	H-010	C-0856/C-0898/7
03-1	H-023A	C-0856/C-0898/7
07-3	H012A	C-0881/C-0885/11
09-1	D-090	M509-1
09-2	D-204	M509-2
12-2	H-003	C-0941-C-0929/15
12-2	H-020	C-0941-C-0929/15
13-1	H-001	C-0940-C-0927/12
15-1	H-013B	C-0937-C-1209/8
15-1	H-052	C-0937-C-0945/5
25-3	D-028B	M-525-3
25-3	D-033	M-525-3
25-3	D-034,5	M-525-3
25-3	D-049,9	M-525-3
25-3	D-082A	M-525-3
25-3	D-212A	M-525-3
25-3	D-275	M-525-3
25-3	H-017	C-0884-C-0901/6
25-3	H-050	C-0884-C-0878/17

07-3	FD-045	M507-3
03-2	D-309	M-503-2
09-2	D-212	M-509-2
10	H-003	C-0887-C-0885/1
12-2	H-034	C-0941-C-0929/15
13-2	H-002A	C-0939-C-0928/1
22-1	D-014,3	M-522-1
22-1	FD-040	M-522-1
22-1	H-030A	C-0862
22-1A	D-083	M-523-1
22-1A	D-406	M-523-1
22-1A	H-530	C-0882-C-0864/6
25-3	H-021A	C-0884-C-0878/14
25-3	H-043	C-0884-C-0893/3
25-3	H-071	C-0884-C-0878/14
25-3	H-099	C-0884-C-0878/18
26-2	H-004A	C-0891-C-0878/1

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-III-83-55 Date: June 29, 1983

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the staff on this date.

Facility: Consumers Power Company
Midland Nuclear Power Station
Units 1 and 2
Docket Nos: 50-329; 50-330
Midland, MI 48640

Licensee Emergency Classification:
_____ Notification of Unusual Event
_____ Alert
_____ Site Area Emergency
_____ General Emergency
XXXX Not Applicable

Subject: RESUMPTION OF SAFETY-RELATED WELDING WORK ON HVAC SYSTEM

Following a review by the Senior Resident Inspector of welding procedures and observation of welding performance demonstrations, Region III (Chicago) has authorized Consumers Power Company to resume safety-related welding work on the heating, ventilating, and air conditioning (HVAC) systems at the Midland construction site. The work was stopped November 30, 1982 1983, after a utility audit determined that the quality assurance program for welder qualification and welding procedure qualification was inadequate. (See PNO-III-82-130.)

The audit findings involved a testing laboratory which performed tests on weld samples used in certifying welders and welding procedures for the Zack Company, Inc., the heating, ventilating and air conditioning contractor.

The stopping of work resulted in 151 welders being laid off. Initially, about 27 welders will be rehired, but it is expected that some 150 welders will eventually be recalled.

Neither the licensee nor Region III plans to issue a news announcement. News media interest may occur, because of the ongoing Operating License proceeding and continuing local news media interest in Midland.

Region III issued a letter to the licensee on June 29, 1983, authorizing resumption of fabrication and welding of the HVAC system. This information is current as of 12 noon, June 29, 1983.

R Gardner J Harrison

Contact: R. Gardner 384-2524 J. Harrison 384-2635

8307060310

DISTRIBUTION:

H. St. 234	MNBB 235	Phillips 237	E/W 231	Willste 239
Chairman Palladino	EDO	NRR	IE	NMSS
Comm. Gilinsky	PA		OIA	RES
Comm. Ahearne	MPA		AEOD	
Comm. Roberts	ELD	Air Rights 240		MAIL:
Comm. Asselstine		SP	INPO 252	ADM:DMB
SECY			NSAC 250	DOT: Trans Only
ACRS	Applicable Resident Site Midland-255			
CA				
PDR	Regions I 242, II 312, IV 248, V 246		Licensee (Corporate Office) Consumer Power 300	

Rev. 1/19/83

JUN 2 9 1983

Docket No. 50-329
Docket No. 50-330

Consumers Power Company
ATTN: Mr. D. Miller
Site Manager
P. O. Box 1963
Midland, MI 48640

Dear Mr. Miller:

The NRC has completed a review of the Zack Company welding procedures and welder performance testing.

This review, which was conducted by the Senior Resident Inspector, consisted of the following:

(1) A review of the welding procedures to assure compliance with the American Welding Society Standards

(2) Observation of a representative sample of welders performing welding activities in the shop and field to those procedures

(3) A review of the result of the destructive testing of the welding specimens

Based on the results of this review you are authorized to proceed with the fabrication and welding of Heating, Ventilation, and Air Conditioning (HVAC) systems.

Should you have any questions do not hesitate to contact me.

Sincerely,

Original signed by
J. J. Harrison

for J. J. Harrison, Chief
Midland Section

cc: See attached distribution list

8307050053 280

OFFICE ▶	RIII		
SURNAME ▶	Gardner/ls	Harrison	Warnick
DATE ▶	6/28/83	6/28/83	6/28/83

NRC FORM 318 (10-80) NRCM 0240 OFFICIAL RECORD COPY

Key

JUN 2 9 1983

cc: James W. Cook, CPCo
Resident Inspector, RIII
The Honorable Charles Bechhoefer, ASLB
The Honorable Jerry Harbour, ASLB
The Honorable Frederick P. Cowan, ASLB
The Honorable Ralph S. Decker, ASLB
William Paton, ELD
Michael Miller
Ronald Callen, Michigan Public Service Commission
Myron M. Cherry
Barbara Stamiris
Mary Sinclair
Wendell Marshall
Colonel Steve J. Gadler (P.E.)
Howard Levin, TERA
Billie P. Garde, Government Accountability Project
Lynne Bernabei, Government Accountability Project

OFFICE							
SURNAME							
DATE							

ZACK TRAVELERS FROM DCC

TRAVELER NUMBER	DRAWING NUMBER
F16904	V-85
F16902	V-85
F16909	V-85
P4394	V-83
F14976	V-35
F8417	V-33
F14025	V-33-QR1
F14028	V-33-QR1
F19603	V-30, sht 2
F19604	V-30, sht 2
F17950	V-27, sht 1
F10647	V-27, sht 2
P1667	V-27, sht 2
P1666	V-27, sht 2
F10648	V-27, sht 2
F1200	V-27, sht 2
F10650	V-27, sht 2
P1652	V-27, sht 2
F13673	V-27, sht 3
F2804	V-27, sht 3
F2482	V-27, sht 3
F8776	V-27, sht 3
P3418	V-27, sht 3
P504	V-27, sht 3
F4379	V-27, sht 7
P1345	V-26, sht 1
F19574	V-26, sht 1A
F6460	V-22, sht 1-1
F6485	V-22, sht 1
P1149	V-22, sht 1
P1107	V-22, sht 1
P1152	V-22, sht 1
P1148	V-22, sht 1
F6464	V-22, sht 1
F10127	V-3, sht 2
F10131	V-3, sht 2
F15961	V-85
F15952	V-85
F19015	V-85
F18107	V-85
F18213	V-85
F11344	V-83
F11353	V-83
F14649	V-37, sht 2
F6312	V-35
F17847	V-34, sht 1
F19306	V-34, sht 1
F15714	V-33

ZACK TRAVELERS FROM DCC (cont)

TRAVELER NUMBER	DRAWING NUMBER
F21800	V-33
F6230	V-26, sht 2
F15971	V-25, sht 1
F17607	V-25, sht 3
F3873	V-24, sht 2
F3866	V-24, sht 2
F11148	V-22
F11020	V-22, sht 1
F16603	V-21
F18416	V-16
F17093	V-13, sht 1
F10385	V-10
F6400	V-5, sht 1
F1812	V-3, sht 2
F18888	V-3, sht 1
F13642	V-2, sht 2
(7/C886)F916-2	V-01

REPAIR ADDENDUMS

F18738-2	V-85
F11246-3	V-85-A
F18744-3	V-85-B
F17552-22	V-83
F18990-2	V-37, sht 2
F12311-2	V-36
F19901-2	V-35
F2882-5	V-27, sht 2
F1997-2	V-27, sht 2
P581-1	V-27
F17779-2	V-24, sht 1
F16676-1	V-24, sht 2
F12724-3	V-15, sht 1
F17114-2	V-15, sht 1
F17942-1	V-15, sht 1
F5804-2	V-10
F5054-1	V-07, sht 1
F3596-2	V-04, sht 1
F3600-1	V-04, sht 1
F14172-3	V-04, sht 2
F3277-1	V-03, sht 1

(+1)

The ZACK Co.

CUSTOM METAL FABRICATION

August 28, 1981
7220-M-151-C/B-538

Bechtel Power Corporation
P.O. Box 2167,
Midland, Michigan 48640

Attn: Mr. L.E. Davis
Site Manager

Re: Consumers Power Company
Midland Power Station
7220-M-151

Gentlemen;

During a recent Quality Assurance review of the certifications for the Midland Project HVAC materials, a number of inconsistancies were determined. These inconsistancies were discussed with Mr. H. Leonard, Manager of Q.A. for MPQAD and verified to also exist in the copies on site. These inconsistancies have been identified and catagorized into the following four areas:

1. Material certifications with incomplete information.
2. Material certifications with technical inaccuracies.
3. Material certifications with possible unauthorized and improper modifications.
4. Possible person/persons improperly modifying material certifications.

While The Zack Company has not yet completed it's investigation as to the extent and validity of the above mentioned inconsistancies, it did feel that the indications were of enough substance that The Zack Company may need to solicit Bechtel Corporations assistance and participation, if these inconsistancies are determined to be deficiencies, in the evaluation and determination of a possible 10CFR50.55(e) reportable defect.

Attached is the Corrective Action Request generated by The Zack Company Quality Assurance Department, which identifies the problem, contains a plan of action to determine the extent of the problem and the time frame for it to be completed. Upon completio of this activity and evaluation of the information gathered, a recommended corrective action will be determined.

At the present time The Zack Company does not feel any additional action by Bechtel Corporation or by Consumers Power Company is required. This position is based upon the following consideration

1. Many of the errors and/or inconsistancies may be only clerical oversights.
2. Recent corrected certifications being received are completely acceptable.
3. Fabrication and erection operations of forming, welding galvanizing, etc. have not indicated any problems which would indicate that the material has any significantly different properties.
4. The inherent design conservatisms may be able to accept any minor descrepancies.
5. The limited number (19) of affected material certificatio identified to date.

The Zack Company will keep Bechtel Power Corporation fully informed of developments as they occur and will discuss all results and evaluations prior to any final reports being issued.

We thank you for your cooperation and support in this matter and should you have any questions or problems, please do not hesitate to contact us at (312) 242-3434.

Very truly yours,

David E. Calkins,
Quality Assurance Manager

DEC/br

cc: R.C. Ash, Field Contracts Admin.
H. Leonard, QA Mgr. MPQAD
C.Z. DeZutel
J.C. DeZutel
C.L. Eichstaedt, Jr.
R.B. McCarley
Files/Midland
Files/Chicago

CORRECTIVE ACTION REQUEST (CAR)

1. CAR NUMBER 014 2. DATE 8/20/81

3. PROJECT Midland Power Station 4. LOCATION Zack Co./Chicago Office

5. ACTION ASSIGNEE Q.A. Mgr./President 6. SCHEDULED COMPLETION DATE 11/20/81

7. DESCRIPTION: An evaluation of Midland Project Material Certifications has revealed the following discrepancies:

1. Incomplete material test reports.
2. Incorrect material test reports.
3. Improperly modified test reports.
4. Possibility of individual(s) within The Zack Company improperly changing test reports.

8. RECOMMENDED/DIRECTED CORRECTIVE ACTION(s): In order to determine the extent & the seriousness of these deficiencies the following investigations and evaluations shall be conducted:

1. The Q.A. Mgr. will direct a team of (4) document Tech and (1) MPQAD rep. to review all material test reports for accuracy and completeness by 10/30/81.
2. For Test Reports suspected of being modified will be verified with the respective supplier. Sched. completion 10/30/81.

(continued, page 2)

H.E. Calkins 8/28/81 9. QA MANAGER/DATE

Charlton Zack Pres. 8/28/81 10. PRESIDENT/DATE

11. ACTION TAKEN:

12. ACTION ASSIGNEE/DATE

13. VERIFICATION:

14. ACCEPTED/REJECTED

15. QA MANAGER/DATE

16. PRESIDENT/DATE

RECOMMENDED/DIRECTED CAR: continued

3. Individual(s) [illegible] suspected of improperly modifying supplier test reports will be investigated and the evidence obtained will be forwarded to The Zack Company President for appropriate disciplinary action.

4. Upon completion of material test report review all technical discrepancies will be identified and forwarded to Bechtel Power Corporation for evaluation.

5. Upon completion of Actions 1 thru 4, Bechtel Power Corporation will be contacted and a determination if a possible 10CFR50.55(e)/10CFR21 report should be initiated.

Correction Report (2)

THE ZACK COMPANY

POTENTIAL: 10CFR50.55(E)

REPORTABLE DEFECT EVALUATION
FOR
MATERIAL CERTIFICATION DEFICIENCIES

PREPARED BY David E Calkins
DAVID E. CALKINS, MANAGER QUALITY ASSURANCE

APPROVED BY Carl L Eichstaedt Jr
CARL L. EICHSTAEDT, JR. PROJECT MANAGER

APPROVED BY Christine Zack DeZutel
CHRISTINE ZACK DEZUTEL, PRESIDENT

THE ZACK COMPANY

POTENTIAL: 10CFR50.55(E)

REPORTABLE DEFECT EVALUATION
FOR
MATERIAL CERTIFICATION DEFICIENCIES

PREPARED BY David E. Calkins
DAVID E. CALKINS, MANAGER QUALITY ASSURANCE

APPROVED BY Raymond M. Greune
RAYMOND M. GREUNE, PROJECT MANAGER

APPROVED BY Christine Zack DeZutel
CHRISTINE ZACK DEZUTEL, PRESIDENT

INDEX

1.0 DESCRIPTION OF DEFICIENCY

There has been a breakdown of the quality assurance program as related to criterion "VI - Document Control" and "VII - Control of purchased material, equipment and services", of Appendix "B" to Title 10 - the Code of Federal Regulations, Part 50. This breakdown resulted in an incomplete review and acceptance of procurement documentary evidence (material certifications) and access to those documents by unauthorized personnel resulting in improper modifications being made.

A quality review of the material certifications revealed that the certifications contained numerous errors of omission, inaccuracies and in some instances alteratio or modifications. These errors and inconsistencies made the material certification suspect and, by implication, the material suspect.

A complete review of the existing purchase orders and corresponding certifications was then conducted to identify all problems or suspected problems and to categorize them into various types of deficiencies with a rating for the significance of each type of deficiency. Each purchase order package reviewed has been arbitrarily categorized by the more significant deficiency or problem. Thus any one package may contain certifications with a wide variety of deficiencies or problems.

The deficiencies were categorized as indicated below from least to most significant

TYPE	DEFINITION
Clerical errors:	Those certifications that had acceptable chemical an physical test data but lacked reference to the prefi "ASTM" (i.e., A36 instead of ASTM-A-36), the revisio or date of standard, the standard (i.e. ASTM, ... other standard) or the grading designation on sheet steel.

Signature missing: These certifications that are acceptable in all respects except, they had not been signed by an authorized representative for the company.

Signature error: These certifications that are acceptable in all respects except, the signature typed and the signature signed do not agree (i.e., J. Jones Q.A. Mgr. typed - actually signed by Tom Smith).

U.S. Steel letter: These purchase orders placed with U.S. Steel Supply and identified by their letter dated 9/25/81 that were not produced and/or distributed through their verification and traceability program.

Anomalies: Those purchase orders or material control numbers identified by the sites as requiring certifications; but, which do not appear to be applicable (i.e., drill bits, grinders, tools of various kinds and office supplies). Also certain material control numbers outside the Zack numbering sequence.

C of C only: Those purchase order packages containing only a certificate of compliance, where it is not clear that this meets contract technical specification requirements.

No certification or C of C: Those purchase order packages which do not contain either a certificate of compliance or other certification and by contract technical specificatio

appear to require a certificate of compliance.

Wrong standard referenced: These are those purchase order packages that contain a materia[illegible] from or certificate of compliance that references a standard not included in the technical specification.

Miscellaneous: Purchase orders indicate by the sites requiring certification but have been "VOIDED" by Chicago, material certifications to standards not available to the reviewers, or other categories not previously identified.

Certifications missing: Those purchase order packages which are lacking only certifications for certain item(s) or all certifications.

Stickers: Those purchase order certifications or certification cover sheets that had gummed labels applied to them. These labels are typed and signed by the individual originally certifying the data to indicate ASTM designation in full. Authenticity of the signature is questionable.

Alterations: Those certifications that have apparently been altere by typed or handwritten changes.

- **Chemical/Mechanical test data:**

These purchase order certifications which have chemical analysis and/or mechanical test data missing, or, is not in accordance with ASTM Standards or technical specification requirements.

2.0 SAFETY IMPLICATIONS:

A review of the types of discrepancies discovered with the material certifications led The Zack Company to believe that only two types of problems exist that could have any safety implication:

1. Indeterminate material properties
2. Unacceptable material properties

The identification of materials falling within these two catagories has been detailed in Section 5 of this report for review by the responsible Architect-Engineer.

While The Zack Company does not have any contractural design responsibility, it has included within the following paragraphs the rationale utilized in determining its opinion that the deficiencies identified do not constitute a substantial safety hazard and are therefore, not reportable under the requirements of Title 10 of the Code of Federal Regulations, Part 50, Section 50.55(e).

2.1 The safety implications assumed by The Zack Company for the safety-related and seismic identified HVAC systems are:

1. The inability of the materials to withstand the static loads imposed during normal operating conditions.
2. The inability of the materials and structures to withstand a seismic event.

Of the material certification deficiencies noted the most serious would appear to be that of indeterminate material properties, where it would not lead to a simple verification of material properties to the design base. However, in all cases noted to date, there is enough information available to indicate that the properties will be able to be obtained or that enough testing of that type of material has been conducted to establish a basis of extrapolating a minimum value for the missing properties, and based upon these extrapolations determining the acceptance of the material.

Those materials with unacceptable material properties can be evaluated on a case by case basis for acceptance.

It is The Zack Company's understanding that the static loads imposed upon the HVAC systems are basically weight carrying loads for hangers and very low pressures for duct work during operation and that the primary consideration for material strength requirements is based upon the seismic loads the system must be able to withstand during an event. All of the materials evaluated by Zack personnel appear to approximate design specification requirements closely enough, that considering only normal engineering design practices, and not considering additional conservatisms normally included in nuclear plant design, they would be acceptable for use in their present condition.

The material certification review that was conducted, included all materials delivered to the project site. For the basis of this evaluation, only those materia used in safety related or seismic designated systems have been included in Section 5 for engineering information. All other items, while still needing to be corrected or accepted contractually, do not have any bearing on the determination of a safety hazard and are not included for analysis.

3.0 RESULTS OF REVIEW:

The following paragraphs represent a summary of the finding of the review group. The information has been tabulated as a percentage of total purchase orders. Howev it should be noted that each of the purchase orders may involve from 1 to 15 certifications with an average of 6 certifications per purchase order.

A total of 1,330 purchase order packages representing approximately 8,000 material certifications were reviewed and while the percentage of purchase order packages with a discrepancy appears to be rather high, (the actual number of certifications with discrepancies requiring engineering evaluation is less than 18% percent.) The majority of the discrepancies indicated will be corrected simply by obtaining additional or corrected data from suppliers. Therefore, not representing any significant problem to the projects in question.

A tabulated breakdown by project is as follows: (see attachments)

550
375
405
1330

800
900
1100
2805

1035
914
871
2820

550 (575) +25

		PERCENT
PURCHASE ORDER/CMTR PKGS REVIEWED	550 (575) TOTAL	
PACKAGES CORRECT & ACCEPTABLE	145 (343)	26
CLERICAL ERRORS	141	26
SIGNATURE MISSING	17	3
SIGNATURE ERRORS	12	2
CHEM/MECH TEST DATA	47	9
U.S. STEEL LETTER	12	2
C OF C ONLY	64	7
NO CERT OR C OF C	24	3
WRONG STANDARD REFERENCED	11	4
CERTS MISSING	22	8
ANOMALIES	16	3
ALTERATIONS	31	5
STICKERS	6	1
MISCELLANEOUS	4	1

0.627
0.424

PURCHASE ORDER/CNTR PKGS REVIEWED	375 (433) TOTAL	
PACKAGES CORRECT & ACCEPTABLE	159 (321	0.856
CLERICAL ERRORS	118	2.05
SIGNATURE MISSING	16	
SIGNATURE ERRORS	9	2
CHEM/MECH TEST DATA	13	3
U.S. STEEL LETTER	1	-0-
C OF C ONLY	10	
NO CERT OR C OF C	4	-0-
WRONG STANDARD REFERENCED	12	
CERTS MISSING	15	7
LISTED BY SITE BUT NOT LOCATED (NOT PART OF TOTAL)	20	
ALTERATIONS	22	
STICKERS	5	
MISCELLANEOUS	7	

405 403 (34)*

		TOTAL	PERCENT
PURCHASE ORDER/CYTR PKGS REVIEWED	(405) 439		
PACKAGES CORRECT & ACCEPTABLE	109	27	0.604
CLERICAL ERRORS	152	37	226
SIGNATURE MISSING	9	2	
SIGNATURE ERRORS	3	1	
CHEM/MECH TEST DATA	10	2	
U.S. STEEL LETTER	6	1	
C OF C ONLY	14	5	
NOT GOOD FOR LA SALLE	10	2	
WRONG STANDARD REFERENCED	5	1	
CERTS MISSING	20	15	
LISTED BY SITE BUT NOT LOCATED (NOT PART OF TOTAL)	40	-0-	
ALTERATIONS	11	3	
STICKERS	3	1	
MISCELLANEOUS	7	2	

4.0 EVALUATION OF DATA

An evaluation of the deficiencies noted on material certifications can be performed most effectively by evaluating the vari s categories as a whole, wherever possible and only evaluating the individual certifications where the category is determined to be significant.

4.1 CATEGORIES

4.1.1 Clerical errors - by definition these types of errors do not require any engineering evaluation but do require continued follow-up with the suppliers to obtain corrected documentation.

4.1.2 Signature missing - requires only correction by the issuing supplier, no engineering evaluation required.

4.1.3 Signature error - requires only correction by the issuing supplier, no engineering evaluation required.

4.1.4 U.S. Steel letter - there are 26 purchase orders referenced in this letter (see exhibit 7.3) where the material is acceptable to ASTM standards but the orders were not processed through the U.S. Steel Quality Program designated V&T for verification & traceability. This i a procurement ordering problem and does not require engineering evaluat

4.1.5 Anomalies - the purchase orders in question do not affect actual materials of construction. Therefore, no engineering evaluation is required.

4.1.6 C of C only - An analysis of each item has been performed, see list in Section 5.

4.1.7 No certification or C of C - An analysis of each item has been performe see list in Section 5.

4.1.8 Wrong standard referenced - Those purchase orders have been analyzed and are detailed in list in Section 5. No engineering evaluation is required.

4.1.9 Miscellaneous - An analysis of each item has been performed, see list in Section 5.

4.1.10 Certifications missing - An analysis of each item has been performed, list in Section 5.

4.1.11 Stickers -The problem of the purchase orders with stickers on them were given an extensive investigation. This investigation determined that person(s) within The Zack Company organization were responsible for the addition of these gummed labels to the material certifications. However it must be taken into consideration that individual(s) involved did not believe that the addition of this information (i.e., ASTM designated number and year) misrepresented the actual condition of the material. The action, while misguided, was done to expedite the release of material that had acceptable chemical and physical properties while the corrected material certifications were being obtained. The Zack Compa also assumes part of the responsibility for allowing the responsible person(s) to be put in a situation that may have appeared to encourage this type of action or at least did not have the necessary ke and balances which would have prevented the occurrence.

The responsible individual(s) have been identified and dealt with in accordance with a presently established company policy, (see corrective action taken), Section 6.

Of the nineteen (19) certifications originally identified to have had stickers added, a follow-up by the same individual(s) involved has resulted in corrected certifications for all but seven (7) of the purchase orders. A continued effort is being made to obtain corrected certifications for these remaining purchase orders. Each of the remaining purchase orders has been identified and evaluated in the list enclosed in Section 5.

4.1.12 Alterations - Material certification observed with more than one typeface used, white out, or hand written modifications have been catagorized as altered. While the investigation has not determined where or when all of these alterations occurred, enough information was obtained to indicate that person(s) from The Zack Company were involved.

The responsible individual(s) have been identified and dealt with in accordance with a presently established company policy (see corrective action taken), Section 6.

The actual alterations while serious from a programatic view, do not effect the structural integrity of the materials and corrected copies will be obtained from the respective suppliers.

A list of the purchase orders involved and the alterations performed are included in the attached interim report (attachment 7.2).

4.1.13 Chemical/Mechanical test data - by definition this category covers only those items which a known chemical and physical certification is required and the review has indicated either the data is missing or incorrect. For those items identified in the attachments where data is missing, the probabilities are extremely high that The Zack Company will locate this information. In those cases where the information cannot be located a physical sample of this material will be identified and those samples will be tested. Based upon the information obtained to date The Zack Company is of the firm belief that all those items identified are of an acceptable quality.

For those items where a discrepant condition exists, this has been identified in the list in Section 5 and designated for Engineering review.

5.0 IDENTIFICATION OF DEFICIENCIES

The following list(s) are broken down by project and by type of discrepancy. Many of those items designated for Engineering review are simply missing certification. In those instances the comment section indicates that The Zack Company believes whether it can obtain the required information from the supplier or whether pieces will have to be identified and tested. Where it is indicated that certifications will be obtained, The Zack Company is requesting that engineering concurrence be given for continuation of work on the basis that prior to turn-over acceptable material certifications are available.

In all other cases The Zack Company is requesting Engineering concurrence that the proposed action stated under the comment section of the list in Section 5 are acceptable.

6.0 CORRECTIVE ACTION:

The following corrective action is directed at providing a systemic correction which will:

1. Prevent reoccurrance through the establishment of a series of checks and balances.
2. Establish the individual responsibilities and provide the required autho to assure implementation.

6.1 PLANNED

a) All existing procurement documentation will be revalidated for compliance to contract technical specifications and other design data.

b) A document and records management program will be developed and implemen

c) A centralized documentation group and center will be established with specific guidelines.

d) Procurement procedures and receiving inspection procedures will be devel and/or revised to include required quality review functions.

e) Unauthorized personnel will be limited from access to records.

f) A company wide training program on documentation and records will be dev and implemented.

g) The Zack Company management will address improper actions taken by emplo to date and establish a definitive [illegible]

h) Additional Quality Assurance/Quality Control personnel will be added as [illegible]

6.2 TAKEN

a) A documentation task force consisting of six (6) persons has been assembl The group experience represents over 25 years in the documentation field and over 60 years in quality or engineering related areas. Three (3) of th six (6) persons have at least a bachelor's degree and two (2) have a Masters degree.

This group has just completed a review of all known or available purchase orders and documentation for the three projects. A centralized filing system has been established and detailed quality assurance instructions (attached) have been developed for records and receipt inspection.

b) No action taken todate.

c) A centralized document control center is in the process of being construc and satellite centers will be established at each of the sites.

d) All purchase orders and material certifications are now being reviewed by newly established quality engineering group at The Zack Company Chicago offices.

e) All document packages revalidated are in locked files.

f) No action taken todate.

g) Those person(s) involved in the modifications to material certifications have been identified and reprimanded by The Zack Company Ownership. This reprimand consisted of demotions in position and documented letters to the personnel files. An intensive and [illegible]

given with respect to the requirements and necessity for accurate and controlled documentation.

As stated previously The Zack Company management and ownership assumed part of the responsibility for these unauthorized actions because it allowed an environment conducive to this type of action to exist. The Zack Company also has taken into consideration that the individual(s) involved are loyal employees and while their actions are not condoned, it is understood that it was done with the thought that it was helping the company. Therefore, The Zack Company perceived that the most beneficial action for both the company and the respective projects was not in the loss of these individual(s) but rather in the redirection and controlling of their efforts.

However, because of the implications of this action by those individual(s the responsible party(ies) have been advised that any further action of this type would result in immediate dismissal.

h) The Quality Assurance and control organizations have been expanded by fou teen (14) people since the 1st of June, 1981 and at least two (2) more quality engineering positions at the Clinton site are contemplated (see organization chart attached).

6.3 SCHEDULED COMPLETION

a) A follow-up program to obtain the missing certifications or corrected certifications from suppliers is scheduled for December 31, 1981.

b) A document and records management program will be completed and implement by December 31, 1981.

c) The centralized documentation group will be made up of The Zack Company personnel presently assigned to the documentation task group now in effe The centralized document center is presently being established and shoul be completed by November 30, 1981.

d) No further action required.

e) Completion of the centralized document center discussed above will put a records under lock and key and will limit access to only authorized personnel. This will be implemented by December 1, 1981.

f) A company training program on documentation will be completed by February 15th, 1982 and training will follow within four (4) weeks.

g) No further action.

h) No further action.

4101 WESTERN • FLINT MICHIGAN 06 • 313/736 2040

the ZACK co.

CUSTOM METAL FABRICATION

October 23, 1981
7220-M-151-C/B-552

Bechtel Power Corporation
P.O. Box 2167,
Midland, Michigan 48640

Attn: Mr. L.E. Davis
Site Manager

Ref: The Zack Company letter #7220-M-151-C/B-538, dated August 28, 1981

Subject: Potential 10CFR50.55(e)

Gentlemen

Since the determination of the inconsistancies in the HVAC material certifications, a concentrated effort has been expended by The Zack Company to review and validate all material certifications for this project. As indicated in the above referenced letter, upon completion of this revalidation a detailed report would be forwarded for your review and any deficiencies identified would be highlighted which would require Bechtel Power Corporation's assistance and participation in the evaluation and determination of these deficiencies for a reportable 10CFR50.55(e) defect.

The Zack Company, therefore, requests that those deficiencies identified in the attached report be forwarded to Bechtel Power Corporation for their review and concurrance that a reportable defect does not exist.

It is The Zack Companys opinion that none of those identified deficiencies would have adversely affected the safety of operations of the nuclear power plant at anytime throughout the expected lifetime of the plant.

The Zack Company is accutely aware of the need to fully comply with the requirements of the technical specification, the contract, the ANSI related codes and 10CFR50 Appendix "B". In consideration of this the final section of the report clearly and concisely shows the corrective action planned and taken to date.

If there are any questions, additional information or concerns in regard to this report, please do not hesitate to contact either;

Mrs. Christine Zack DeZutel, President
(or) Mr. David E. Calkins, Manager Quality Assurance

at (312) 242-3434.

Very truly yours,

THE ZACK COMPANY

David E. Calkins

David E. Calkins,
Manager Quality Assurance

DEC/br

cc: Mr. John Rutgers, (BPCo)
Mr. Clark Ash, (BPCo)
Mr. Hank Leonard, (MPQAD Mgr.)
C.Z. DeZutel
J.C. DeZutel
C.L. Eichstaedt, Jr.
R.B. McCarley
Q.A. Chicago
Q.A. Midland

600 W. 12TH PLACE • CHICAGO IC ROHLL 60050 • 312/242-3434
4401 WESTERN • FLINT MICHIGAN 48506 • 313/736-2040

the ZACK co.

CUSTOM METAL FABRICATION

October 23, 1981
#K-2910-ZCB-300

Baldwin Associates
P.O. Box 306,
Clinton, IL 61727

Attn: Mr. William Harrington
Project Manager

Ref: The Zack Company letter #K-2910-ZCB-297, dated September 25, 1981

Subject: Potential 10CFR50.55(e)

Gentlemen;

Since the determination of the inconsistancies in the HVAC material certifications, a concentrated effort has been expended by The Zack Company to review and validate all material certifications for this project. As indicated in the above referenced letter, upon completion of this revalidation a detailed report would be forwarded for your review and any deficiencies identified would be highlighted which would require Sargent and Lundy's assistance and participation in the evaluation and determination of these deficiencies for a reportable 10CFR50.55 (e) defect.

The Zack Company, therefore, requests that those deficiencies identified in the attached report be forwarded to Sargent and Lundy for their review and concurrance that a reportable defect does not exist.

It is The Zack Companys opinion that none of those identified deficiencies would have adversely affected the safety of operations of the nuclear power plant at anytime throughout the expected lifetime of the plant.

The Zack Company is accutely aware of the need to fully comply with the requirements of the technical specification, the contract, the ANSI related codes and 10CFR50 Appendix "B". In consideration of this the final section of the report clearly and concisely shows the corrective action planned and taken to date.

If there are any questions, additional information or concerns in regard to this report, please do not hesitate to contact either;

Mrs. Christine Zack DeZutel, President
(or) Mr. David E. Calkins, Manager Quality Assurance

at (312) 242-3434.

Very truly yours,

THE ZACK COMPANY

David E. Calkins,
Manager Quality Assurance

DEC/br

cc: G. Bennett Browne, Supt. Subcontracts (BA)
J. Smart, (BA/QA)
C.Z. DeZutel
J.C. DeZutel
C.L. Eichstaedt, Jr.
B. LaRoche
T. Packy
Q.A. Chicago
Q.A. Clinton

the ZACK co.

CUSTOM METAL FABRICATION

October 23, 1981
HVAC Contract #J-2590

Commonwealth Edison Co.
LaSalle County Nuclear Station
Rural Route #1, Box 220,
2601 N. 21st Road,
Marseilles, IL 61341

Attn: Mr. William Donaldson
Site Manager

Ref: The Zack Company letter dated September 25, 1981

Subject: Potential 10CFR50.55(e)

Gentlemen;

Since the determination of the inconsistancies in the HVAC material certifications, a concentrated effort has been expended by The Zack Company to review and validate all material certifications for this project. As indicated in the above referenced letter, upon completion of this revalidation a detailed report would be forwarded for your review and any deficiencies identified would be highlighted which would require Sargent and Lundy's assistance and participation in the evaluation and determination of these deficiencies for a reportable 10CFR50.55(e) defect.

The Zack Company, therefore, requests that those deficiencies identified in the attached report be forwarded to Sargent and Lundy for their review and concurrance that a reportable defect does not exist.

It is The Zack Companys opinion that none of those identified deficiencies would have adversely affected the safety of operations of the nuclear power plant at anytime throughout the expected lifetime of the plant.

The Zack Company is accutely aware of the need to fully comply with the requirements of the technical specification, the contract, the ANSI related codes and 10CFR50 Appendix "B". In consideration of this the final section of the report clearly and concisely shows the corrective action planned and taken to date.

If there are any questions, additional information or concerns in regard to this report, please do not hesitate to contact either;

Mrs. Christine Zack DeZutel, President
(or) Mr. David E. Calkins, Manager Quality Assurance

at (312) 242-3434.

Very truly yours,

THE ZACK COMPANY

David E. Calkins,
Manager Quality Assurance

DEC/br

cc: Mr. L.J. Burke, Site Project Supt.
Mr. T. Quaka, QA CECo.
Mr. J. Dearbeck, CECo.
C.Z. DeZutel
J.C. DeZutel
C.L. Eichstaedt, Jr.
C. Baumgardner
Q.A. Chicago
Q.A. LaSalle

TO: David E. Calkins

FROM: H. McGrane

SUBJECT: Third Interim Report - Documentation Review Results as of October 23, 1981

SUMMARY:

During the period October 2, thru October 23, 1981 the documentation review group completed the review of those P.O./CMTR packages that have been located to date. The P.O./CMTR packages now are consolidated, firmly attached in binders and filed in fire-resistant cabinets.

Approximately 1,750 packages have been reviewed. The majority of packages contain more than one certification, as multiple item purchase orders are utilized by The Zack Company for procurement.

The results of the documentation review have been tabulated on the attached sheets. It should be noted that each package has been categorized arbitrarily by the more predominant deficiency or problem, thus any one package may contain certifications with a fairly wide variety of such deficiencies or problems.

The consolidation process mentioned above involved in many instances a re-review with resulting changes in the categorization of the package. These changes are now incorporated in the tabulation.

DISCUSSION:

The tabulations are presented as follows:

It should be noted that while pages 12, 13, and 14 appear to list a great number of missing certifications, a detailed review of each individual package and a concurrent search other documentation areas (traveler/load packages, engineering files, etc.) may very likely resolve the apparent problem.

It is felt that the current status of the review process should be categorized as preliminary. Essentially the review has not been an in depth analysis of all documentation. Appreciable progress has been made toward assessment but final status has not been firmly defined.

CATEGORIZATION: The results of the review have been categorized as follows:

Clerical Errors - Lack of reference to "ASTM", revision year of standard, ASTM designation, or G-90 coating.

Signature Missing - Lack of written signature on cert.

Signature Error - Signature as typed and handwritten signature or initials not identical.

Chemical/Mech Test Data - Chemical analysis and/or mechanical test data missing and/or not in accordance with ASTM Std. or Tech. Spec. requirements.

U.S. Steel letter - P.O.'s listed in U.S. Steel letter to Zack Co. dated 9/21/81, stating that material on P.O.'s were not processed thru U.S. Steel V&T program..

C of C only - Packages containing only a certificate of compliance which appears to lack approval by Tech. Spec. change.

No Cert of C of C - Packages which do not contain either a C of C or other certificat and appear to require a C of C only.

Certs Missing - Packages which are lacking only certs for certain item(s) or all certs.

Anomalies - P.O. no.s/MCN's listed by site as requiring certifications, but which do not appear to be applicable, i.e., tools, etc. - also certain numbers outside the Zack P.O. no. sequence.

Alterations - Apparent alteration of certs by typing or handwritten changes.

Stickers - Gummed labels applied to certifications or certification cover sheets. These are typed and signed to indicate ASTM designation in full and signature of responsible individual certifying the data. Authenticity of the signatures is questionable.

Wrong Standard Referenced - Certification or C of C references a standard not applicable to the material(s) listed.

Miscellaneous - Voided purchase orders, certs to standards not available to reviewers, "blanket" P.O. etc.

	TOTAL	PERCENT
PURCHASE ORDER/CMTR PKGS REVIEWED	550	
PACKAGES CORRECT & ACCEPTABLE	145	26
CLERICAL ERRORS	141	26
SIGNATURE MISSING	17	3
SIGNATURE ERRORS	12	2
CHEM/MECH TEST DATA	47	9
U.S. STEEL LETTER	12	2
C OF C ONLY	38	7
NO CERT OR C OF C	14	3
WRONG STANDARD REFERENCED	24	4
CERTS MISSING	43	8
ANOMALIES	16	3
ALTERATIONS	31	5
STICKERS	6	1
MISCELLANEOUS	4	1

	TOTAL	PERCENT
PURCHASE ORDER/CMTR PKGS REVIEWED	375	
PACKAGES CORRECT & ACCEPTABLE	159	42
CLERICAL ERRORS	118	31
SIGNATURE MISSING	16	4
SIGNATURE ERRORS	9	2
CHEM/MECH TEST DATA	13	3
U.S. STEEL LETTER	1	-0-
C OF C ONLY	6	1
NO CERT OR C OF C	-0-	-0-
WRONG STANDARD REFERENCED	12	3
CERTS MISSING	27	7
LISTED BY SITE BUT NOT LOCATED (NOT PART OF TOTAL)	20	---
ALTERATIONS	22	6
STICKERS	5	1
MISCELLANEOUS	7	1

	TOTAL	PERCENT
PURCHASE ORDER/CMTR PKGS REVIEWED	405	
PACKAGES CORRECT & ACCEPTABLE	109	27
CLERICAL ERRORS	152	37
SIGNATURE MISSING	9	2
SIGNATURE ERRORS	3	1
CHEM/MECH TEST DATA	10	2
U.S. STEEL LETTER	6	1
C OF C ONLY	19	5
NOT GOOD FOR LA SALLE	10	2
WRONG STANDARD REFERENCED	5	1
CERTS MISSING	61	15
LISTED BY SITE BUT NOT LOCATED (NOT PART OF TOTAL)	40	-0-
ALTERATIONS	11	3
STICKERS	3	1
MISCELLANEOUS	7	2

C-738 "Sticker" added to Midwest Steel cert to indicate ASTM/year and signature.

C-742 "Sticker" added to U.S. Steel cert to indicate ASTM/year and signature.

C-779 "Sticker" added to National Metal cert to indicate ASTM/year and signature.

C-948 "Sticker" added to National Metal cert to indicate ASTM/year and signature.

C-739 "Sticker" added to U.S. Steel cert to indicate ASTM/year signature.

C-689 "Sticker" added to National Metal cover letter to indicate ASTM/year signatur

"STICKERS" CLINTON STATION ONLY

C-738 "Sticker" added to Midwest Steel cert to indicate ASTM/year and signature.

C-742 "Sticker" added to U.S. Steel cert to indicate ASTM/year and signature.

C-779 "Sticker" added to National Metal cert to indicate ASTM/year and signature.

C-948 "Sticker" added to National Metal cert to indicate ASTM/year and signature.

C-1003 "Sticker" added to Penn-Dixie cert to indicate Heat No., ASTM/year and signature.

"STICKERS" LASALLE STATION ONLY

C-738 "Sticker" added to Midwest Steel cert to indicate ASTM/year and signature.

C-739 "Sticker" added to U.S. Steel cert to indicate ASTM/year, G-90 coating and signature.

C-742 "Sticker" added to U.S. Steel cert to indicate ASTM/year and signature.

ALTERATIONS — MIDLAND STATION ONLY

C-604 Carbon content (chemical analysis) White out and retyped.

C-641 ASTM year added in different type face.

C-643 ASTM year added in different type face.

C-728 P.O. number changed on galvanizing cert.

C-743 Year added to cert.

C-752 P.O. number changed on galvanizing cert.

C-812 P.O. number changed on galvanizing cert.

C-855 Number of pcs. changed on galvanizing cert

C-863 P.O. number changed on Edgecomb cert.

C-870 Year added to cert.

C-872 Heat number changed on cert.

C-891 ASTM designation added to cert.

C-914 "Kawin" cert. P.O. number changed (coil #478)

C-918 "G-20" added to cert.

C-920 Material size added to cert.

C-938 P.O. number changed on cert.

C-940 Vendor name changed on Central Steel cert cover letter.

C-946 Heat number changed on cert.

C-948 3 & 4 Description and heat numbers enhanced.

C-1021 Heat number changed on cert.

C-1029 P.O. number changed on galvanizing cert.

C-1023 Material description changed on cert cover letter.

C-1118 Year added to cert.

C-1163 Cert cover letter, heat number typed over.

C-1228 Size of material changed on galvanizing cert.

C-1274 Year added to cert.

C-1321 Material description changed on galvanizing cert.

C-1328 Heat number enhanced on cert.

C-4064 P.O. number changed on C of C.

C-4175 P.O. number changed on cert.

C-4246 P.O. number changed on C of C.

ALTERATIONS

CLINTON STATION ONLY

C-60	Carbon content (chemical analysis) white out and retyped.
C-641	ASTM year added in different type face.
C-643	ASTM year added in different type face.
C-697	P.O. number changed on galvanizing cert.
C-720	P.O. number changed on galvanizing cert.
C-743	ASTM year added to cert.
C-812	P.O. number changed on galvanizing cert.
C-855	Number of pcs changed on galvanizing cert.
C-914	"Kawin" cert., P.O. number changed.
C-918	"G-90" added to cert.
C-739	P.O. number changed on Pittsburgh Testing Lab. cert.
C-960	Heat number changed on cert.
C-1021	Heat number changed on cert.
C-1022	Material description changed on cert cover letter.
C-1044	P.O. number changed on galvanizing cert.
C-1077	P.O. number changed on galvanizing cert.
C-1118	ASTM year added to cert.
C-1136	Heat number enhanced on Bethlehem Steel cert.
C-1163	Cert cover letter, heat number typed over.
C-1274	ASTM year added to J&L cert.
C-4420	Year added to cert.
C-1177	Cert cover letter altered.

ALTERATIONS

LASALLE STATION ONLY

C-604 Carbon content (chemical analysis) white out and retyped.

C-6[illegible] ASTM year added in different type face.

C-642 ASTM year added in different type face.

C-743 ASTM year added to cert.

C-855 Number of pcs changed on galvanizing cert.

C-914 "Kawin" cert, P.O. number changed.

C-938 P.O. number changed on cert.

C-940 Vendor name changed on Central Steel cert cover letter.

C-947 Heat number enhanced.

C-1029 P.O. number changed on galvanizing cert.

C-1274 Year added to cert.

C-No.

456 - N.C.
460 ok galvanizing
466 - n.gal. n.p.
470 ok galvanizing
519 ok galvanizing
577 C of C
582 ok
631 ok galvanizing
687 ok
722 - N.C.
785 partial
801 ok galvanizing
802 ok n.g.c.
1089 - N.C.
4014 - N.C.
4034 ok
4100 C of C
4102 ok
4267 ok
4334 ok
4331 ok n.gal.
12303 C of C
14212 ok
4354 C of C
507 ok
637 ok galvanizing
641 ok galvanizing
660 ok galvanizing
689 N.C.
761 ok
867 n.p. n gal
1138 ok
4021 ok
4128 ok
4131 ok
4262
8314 - 760 C
11503 - N.C.
12310 C of C
12340 C of C
12982 - N.C.
13295 - non c.o.

576
577
578

Note: It is anticipated that all or many of the above will be located during the traveler review. The galvanizing certs can very likely be located by an intensive review of other P.O. packages for galvanizing (Reliable).

MISSING CERTIFICATIONS - CLINTON STATION

C-No.

561 - N.C.
704 - N.C
666 ok
787 ok
789 ok
801 ok
802 ok N.C.
817 ok
1108 - N.C.
1135 - N.C.
3114 ok
4004 C of C
4202 ok
4116 ok
4122 - N.C
4130 ok
4137 C of C
4178 ok
4223 ok
4262 ok
4350 ok
4400 ok
4427 ok
4455 ok
12256 - C of C [illegible]
12265 C of C
12279 C of C

Note: See comments on Page 12

[illegible] CERTIFICATIONS - [illegible]ALLE STATION [illegible]

C-No.	C-No.
470 - ok	773 ok
474 - ok	775 ok
520 - gal	9422 - n.c.
572 - n.c.	13207 C of C
605 ok	13246 C of C
627 ok [illegible]	
636 ok	
637 ok	
643 ok [illegible]	
645 ok	
658 ok	
666 ok	
683 ok no p.	
684 ok	
704 - n.c. (2 items)	
711 ok no p.	
722 - n.c. (4)	
736 - n.c.	
790 ok	
793 ok	
798 - n.c.	
813 ok	
3111 ok no p. no gal. certs	
311[illegible] ok	
4014 - n.c.	
4021 n.c. C of C	
4093 ok	
4105 n.c. C of C	
4108 C of C	
4137 n.c. C of C	
4143 ok	
4268 - n.c.	
4337 ok	
434[illegible] C of C	
4455 ok	
5776 - n.c.	
924[illegible] n. gal. c.	
[illegible] n. gal. c.	
9441 n. gal. c.	
9447 ok	
9455 no gal. certs	
9505 - no P.O.	
9506 - no. certs	
12303 C of C	
12346 ok	
522 - n.c. [illegible]	
5[illegible] ok	
52[illegible] ok	
535 ok	
549 - n.c.	
552 - n.c.	
559 C of C	
563 ok	
583 ok	
584 ok	
586 ok	

572
704
722
736
798
4014
4268
5776
9506
522
549
552
9422
} 13

NOTE: See comment on Page 12

The following lists (partially) P.O. numbers that are assumed to have been used but were not located during the review. The list is limited to numbers that occur in sequence where the preceding and following number have been located.

C-No.

502 ok [illegible]
548 ok Dupont pt.
592 ok silastic
800 – missing
922 – missing
1000 – missing
1007 – missing
1402 ok
4003 missing
4160 ok Weld. Qual
4195 ok Weld. Qual
4197 no test records
4218 not found
4311 ok Weld. Qual
4390 ok Weld. Qual

5 { 800, 922, 1000, 1007, 4000 }

10 – found

The above numbers are representative only. It is suggested that a detailed study of the Purchasing Agents records might resolve the apparent missing package problem.

U.S. Steel Supply
Division of United States Steel Corporation

CHICAGO SERVICE CENTER

P. O. BOX 7310
CHICAGO, ILLINOIS 60680
312/646 3211

September 21, 1981

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

Attention: Mr. R. Hagen, P.A.

Gentlemen:

In reference to your P.O.'s

C1211 dated 12-3-80✓	C1227 dated 1-02-81✓	C1265 dated 3-16-81✓
C1219 dated 1-02-81✓	C1238 dated 1-30-81✓	C1266 dated 3-20-81✓
C1220 dated 1-02-81✓	C1246 dated 2-11-81✓	C1280 dated 4-13-81✓
C1221 dated 1-02-81✓	C1247 dated 2-11-81✓	C1281 dated 4-13-81✓
C1222 dated 1-02-81✓	C1253 dated 2-19-81✓	C1283 dated 4-21-81✓
C1223 dated 1-02-81✓	C1257 dated 3-11-81✓	C1295 dated 5-01-81✓
C1224 dated 1-02-81✓	C1260 dated 3-11-81✓	C1305 dated 5-19-81✓
C1225 dated 1-02-81✓	C1261 dated 3-19-81✓	C1309 dated 5-20-81✓
C1226 dated 1-02-81	C1264 dated 3-16-81✓	

The above confirming orders all read "Safety Related." These orders were not called in to our salesperson as "Safety Related." Therefore, they were handled in our normal procedure and not run through our V & T Program which your company audited on 9-11-81.

Please advise us what is meant by the term "Safety Related" and what obligation if any does this impose on the supplier.

Sincerely,

U.S. STEEL SUPPLY

Gerald E. Peters

Gerald E. Peters
Office Supervisor

GWP/mm

cc: K. Schaefer, Quality Assurance Engineer

We want to work for you.

Attachment to Serial 10034

MIDLAND PROJECT

USNRC RESIDENT INSPECTOR EXIT MEETING OF OCTOBER 31, 1980

An exit meeting was held with the USNRC Resident Inspector, Mr R J Cook, on October 31, 1980. The following were in attendance:

BHPeck - CPCo Construction Supervisor

LADreisbach - Bechtel PQAE

HPLeonard - MPQAD

RJCook - USNRC Reactor Inspector

RWShope - B&W QC Supervisor

Mr Cook discussed the 10CFR21 report on the Delaval Diesel Generators. Mr Cook noted that the letter from Delaval had been received on site September 26, 1980. Mr Cook had been aware of this potential problem by an internal USNRC communication of an earlier date. Mr Cook had brought this problem to CPCo's attention as a result of an inquiry from MJSchaeffer of MPQAD. Mr Cook made the point that although the DeLaval letter is not on its surface obviously a 10CFR21 Report, it still constitutes significant safety information, which was not recognized by Bechtel and CPCo. In short, Mr Cook believes our reporting system is not working well. Mr Dreisbach made the point that while Bechtel did not bring the report to the attention of CPCo, work had been put in progress to evaluate whether our Diesel Generators have the reported deficiency. Mr Dreisbach also made the point that what we had violated was our own procedure, the NQAM, not 10CFR21 per se. Mr Cook made the point that a 10CFR50.55(e) evaluation had not been started until October 24, and he was concerned that information of safety significance, regardless of 10CFR21 requirements, simply had not properly been brought into a system for evaluation. Mr Dreisbach noted that the inspection of the first Diesel Generator had been completed and that no deficiency had been found. Mr Cook advised that he considered the failure to notify CPCo of the 10CFR21 Report to be an Item of Noncompliance (Infraction).

Mr Cook made us aware of an October 1, 1980 USNRC internal letter discussing requirements for Diesel Generator Fuel Oil Quality. Mr Cook had discussed Regulatory Guide 1.137 Requirements and problems known to have occurred at Arkansas 1 with CPCo Operations personnel. CPCo Operations had identified several procedures which relate to the control of fuel oil, but had acknowledged that there was no tying mechanism among the procedures to ensure that all requirements had been met. Documents mentioned by Mr Cook were:

Operations Procedure 4520.1

FSAR Volume IX, Page 3A-160

Station Procedure 1040.6

Technical Specification Page 16.3/4.8-3

(3)

TO: Dave Calkins

FROM: H. McGrane

SUBJECT: Interim Report - Documentation Review results, Clinton Station only.

SUMMARY:

The attached sheets tabulate the results of subject review. Approximately 25 P.O./cert packages listed on the Clinton list (telecopy from site) remain to be located/reviewed.

DISCUSSION:

The results of the review have been categorized as follows:

Clerical Errors - Lack of reference to "ASTM", revision year, or any ASTM Standard.

Signature Missing - Lack of written signature.

Signature Error - Typed signature and written signature/initial not identical.

Chemical/Mechanical Test Data - Chemical analysis and/or mechanical test data missing or not in accordance with ASTM standard requirements.

Alterations - Apparent of certification by typed or handwritten additions.

Stickers - Gummed labels applied to certifications or cover sheets. These typed and signed to indicate compliance with ASTM standards ("ASTM"-year) Authenticity of the signatures is questionable.

Missing Certifications - Self explanatory. Certain packages lack certification for all, or for only certain items.

U.S. Steel Letter - Indicates P.O.'s listed in U.S. Steel Company letter to Zack Company dated September 21, 1981 indicating that such P.O.'s were not processed thru U.S. Steel's V & T program.

Voided Purchase Order - P.O. number (control number) listed by Clinton site as appearing on traveler but voided in Zack Company files.

Other - Various discrepancies - P.O. missing (2) and cert reference grade of steel not listed in ASTM standard - (1).

INTER-DEPARTMENT CORRESPONDENCE

(4)

FILE

TO: THOSE LISTED BELOW

DATE: NOVEMBER 10, 1980

FROM: W. W. SCHWIERS

SUBJECT: WM. H. ZIMMER NUCLEAR POWER STATION UNIT I
NRC RESIDENT INSPECTOR'S EXIT MEETING AT
MIDLAND PROJECT, W.O. 87300-957, JOB E-5590

Attached, for your information, is a copy of a Consumers Power Company internal memorandum concerning their NRC Resident Inspector's Exit Meeting on October 31, 1980.

W. W. SCHWIERS

JFW:ec

Addressees:

J. R. Schott
S. C. Swain
Henry J. Kaiser Co.
Attn: P. S. Gittings
R. Marshall

UNITED STATES GOVERNMENT
CORRESPONDENCE

(4)

FILE

TO: THOSE LISTED BELOW

DATE: NOVEMBER 10, 19

FROM: W. W. SCHWIERS

SUBJECT: WM. H. ZIMMER NUCLEAR POWER STATION UNIT I
NRC RESIDENT INSPECTOR'S EXIT MEETING AT
MIDLAND PROJECT, W.O. 57300-957, JOB E-5590

Attached, for your information, is a copy of a Consumers Power Company internal memorandum concerning their NRC Resident Inspector's Exit Meeting on October 31, 1980.

W. W. SCHWIERS

JFW:ec

Addressees:

J. R. Schott
S. C. Swain
Henry J. Kaiser Co.
Attn: P. S. Gittings
R. Marshall

With respect to the construction phase of the project, Mr Cook noted that fuel oil was not on the Q-list and that the fuel oil tanks were not now in a Q-clean condition. Mr Cook suggested a Q-Program be applied to the first fuel oil supply to be brought on site.

Mr Cook discussed the existing unresolved item regarding lifting of the rotors for the Diesel Generators. Mr Cook had been reviewing documentation on this issue, which had been provided by DRKeating of MPQAD. Mr Cook stated that he had not yet completed his review and this item would remain open. Mr Cook stated that he believed there were more damaged rotors in the warehouse.

Mr Cook noted that he had previously challenged qualifications of two B&W welders. After discussion with B&W and MPQAD personnel and review of Code requirements, it had been determined that these welders were indeed qualified. However, Mr Cook was concerned that the qualification status was not immediately obvious and that answers from MPQAD personnel did not come forth as readily as he expected. While this concern is not an item for Mr Cook's report, he thought that recent audits should have broached this subject, considering the "first-time" nature of the B&W Steam Generator modifications.

Mr Cook commented on the Graver Tank hydrotesting. Mr Cook noted that moisture had been observed in the tell-tale holes. Such moisture could be indicative of a leaking tank. While Mr Cook does not believe this to be the case and that there is probably no real technical problem here, he believes that the Quality System should recognize and address this situation.

Mr Cook noted that Reactor Coolant Pump Motors were being fitted to the pump bases. While not yet the case, Mr Cook believes that hand fitting may be necessary to assemble these units. If so, such hand fitting needs to be covered by a procedure and documented.

Mr Cook discussed concerns regarding The Zack Company. Mr Cook noted that AWS requires fitting and cleaning of weld joints before welding, but he had been unable to establish that this was an inspection criterion by Zack. Mr Cook noted that it was a requirement to inspect welds prior to painting, but he had been unable to identify a forcing function which causes the inspection to happen first, or which prohibits painting when an inspection has not been done. Mr Cook noted that a problem had been discovered regarding Ruskin Dampers, in that different gauges of metal had been used for construction than had been intended by the design documents. Mr Leonard noted that this situation had already been recognized and that an MPQAD NCR had been written. Mr Cook noted that there appeared to be some confusion regarding the inspection of dampers. It is not clear whether the Ruskin Inspection of the Dampers is solely for the purpose of clearing the earlier 10CFR21 Report or whether the Ruskin Inspection will address some of these other issues. Mr Cook stated he had discussed this with Zack and Bechtel personnel and had been unable to establish that all parties understood what was to happen.

Consumers Power Company

Midland Project: P.O. Box 1963, Midland, Michigan 48640 • (517) 631-0951

November 4, 1980

Mr W R Bird
Consumers Power Co
1945 Parnall Road
Jackson, MI 49201

* Copies to
JRS
SCS
PSG
RM

Mr L A Dreisbach
Bechtel Power Corp
PO Box 2167
Midland, MI 48640

QUALITY ASSURANCE DEPARTMENT

DATE:	
ROUTE TO	INITIAL
WWS	WWS
✓ PLA	
✓ JCB	
PGD	
✓ RFE	
✓ JFW	
✓ DCK	
✓ RLW	
QA FILE:	

MIDLAND PROJECT - EXIT MEETING WITH USNRC RESIDENT INSPECTOR ON OCTOBER 31, 1980
File 0.4.2.1 UFI 73*60*12 Serial 10034

An exit meeting was held with the USNRC Resident Inspector, Mr R J Cook, on October 31, 1980. Attached to this letter are the minutes of that meeting.

H P Leonard
Acting Site QA Superintendent

CC RCBauman
JWCook
LHCurtis
LEDavis
DRKeating
GSKeeley
BMarguglio
JMilandin
DBMiller
JARutgers
TJSullivan
GBSlade
GSzczotka
RWShope
Great Lakes QA Managers

Attachment to Serial 10033

MIDLAND PROJECT

USNRC UP-DATE MEETING OF OCTOBER 17, 1980

An up-date meeting was held in Jackson with the USNRC on October 17, 1980. The following were in attendance:

CPCo	Bechtel	USNRC
RCBauman	JMilandin	KRNaidu
WRBird		RNSutphin
TLBriningstool		
JNLeech		
BWMarguglio		

Mr R N Sutphin opened the meeting by indicating that it was going to be somewhat of an informal update concerning the activities covered in Ann Arbor & Jackson

Mr Sutphin went over the meeting held in Ann Arbor, which dealt with Personnel Air Locks. Several points of concern remained in that the status of the wrap-around welds need to be addressed; ie, additional welding may be necessary. Also, Mr Sutphin stated that the drawings for the personnel air lock configurations has to be updated to reflect the as-built conditions.

Mr Sutphin also mentioned that while he was in the control room the previous week, he noticed an uncapped can of cutting oil sitting on top of one of the main control panels. CPCo agreed with him that if the can would spill it could possibly cause some deleterious effects to internal components and would caution the users to keep all cans capped when not in use.

Mr K R Naidu began summarizing what he had looked into by mentioning first that the J-201 Procurement Specifications G-321D form did not require the vendor (magnetic to supply Welding Procedures and Qualifications, Weld Rod Control Procedures, and Repair Procedures for the main control room boards. Also, he questioned the assumption given in the seismic analys's for the main control boards which assumed the panels were welded with a 3/16 inch weld, 2 inches long and on 6 inch centers. He observed welds less than 3/16 of an inch, and a majority of these welds had a 1/4 x 2 bolt inserted through the center of the welds to fasten ceiling conduit sleeves. Mr Naidu, at this time, did not know how to handle this item. CPCo had Bechtel report this indeterminate condition on NCR No 3178 as soon as the NRC identified it. Mr Naidu alluded to possibly writing this up (the drilling through the welds) as an Item of Noncompliance; however, he needs to further evaluate the condition.

Secondly, Mr Naidu discussed the responses to the Audit done by CPCo in May 1980 (Audit M-01-55-0), in that the Audit Responses had not been sent until July 29, 1980 (over 60 days). He went on by stressing that "the main object is to get things corrected in a timely manner." CPCo agreed to look further into this matter.

Mr Naidu concluded by saying he reviewed several NRC I&E Bulletins and Circulars and went through relay-coordination studies with the System Protection and Laboratory Services personnel. He found no problems in these areas.

(5)

To: David E. Calkins, Quality Assurance Manager, Zack Co.

From: A. T. Howard, Supervisor - Document Control, Zack Co.

Subj: Fourth Interim Report - Documentation Review Results as of January 4, 1982

Please find enclosed a continuous, parallel and updated review report of the P.O./CMTR as of January 4, 1982. Using the Interim Report of October 23, 1981 as an approximate base, it can be quite simple to make a generalized comparative analysis.

It should be noted that the Documentation Engineers previewed and re-reviewed in excess of 2800 purchase order packages. The report highlights less than 1400 P. O. packages. The disparity is due in part to the pkg. being listed for more than one site. However, it is further assumed that the lists of P.O. #s submitted to Chicago by the various sites are incomplete.

It should be further noted that the difference in number of completed and acceptable packages between the two forementioned reports is completely a result of search, research and communicative efforts of the Documentation personnel. These same efforts are being progressively made easier by more cooperative attitude of other Zack associates. It is the optimistic expectation that this same cooperation will be forthcoming from the field locations.

In keeping with the essence of the previous report, one should refer to definitions and arbitrary categories.

As was generalized in the previous report, the categories of alteration, missing certifications, missing signatures and stickers are for the most part cleared as either found or acceptable.

A. T. Howard

ATH/ar
enc:

LA SALLE

	#	%
P.O./CMTR Reviewed	405	
P.O. Pkgs. accepted as correct	289	71.36
No cert (s)	25	6.17
No physical tests	5	1.23
Wrong standard referenced	16	3.95
Missing	9	2.22
No ASTM/year designation	24	5.93
No ASTM	4	1.00
No ASTM year	14	3.46
C of C only	1	.25
Material does not meet specification	4	1.00
U.S.S. Supply letter (enclosed)	9	2.22
Clerical error(s)	1	.25
Alteration(s)	0	0
No ASTM/yr.	2	.50
No P.O.	2	.50

CLINTON

	#	%
P.O./CMTR. reviewed	398	
P.O. Pkgs. accepted as correct	327	82.16
No cert	12	3.02
No physical tests	6	1.51
Wrong standard referenced	25	6.28
Missing	6	1.51
No ASTM/year designation	5	1.26
No ASTM	7	1.76
No ASTM year	3	1.00
C of C only	1	.25
Material does not meet specification	-	-
U.S.S.Supply letter (enclosed)	(5)	-
Clerical errors (s)	2	.50
Alteration (s)	2	.50
No ASTM/yr.	-	-
No P.O.	1	.25
No chemical tests	1	.25

MIDLAND DISCREPANT (OPEN)

453	No physicals (coil #225, 226, 227, 228)	
454	No certs	
455	No physical tests (coil #229, 230, 231, 232)	
465	No physical tests (coil #233, 233, 235, 236)	
466	Clerical errors	
482	Missing	
491	Missing	
500	Missing	
507	Wrong standard referenced	*
519	No galv. cert	
549	No certs	
552	No certs	
565	Wrong standard referenced	*
566	Wrong standard referenced	*
577	No standard referenced	*
589	No standard referenced	*
594	Wrong standard referenced	*
602	No physical tests	
603	No physical tests	
624	No physical tests (coil #311,312, 313, 314)	
675	No physical tests	
689	No certs	*
708	Missing cert (1 item)	*
711	No physical tests (1 item)	

722	No certs	*
726	No chemical tests (1 item)	
732	No cert (tubing)	
785	No cert (1 item)	*
837	No ASTM yr.	
856	No ASTM yr.	
866	No ASTM yr.	
867	No physical tests - no galv. certs	*
872	No certs	*
891	Clerical errors	
896	No ASTM yr.	
926	No ASTM yr.	
954	No ASTM	
980	Clerical errors	
996	No ASTM yr.	
1021	Alteration (cover letter)	
1074	No ASTM yr.	
1087	No ASTM	
1099	No chemical test data	
1137	Wrong standard referenced	*
1138	Wrong standard referenced	*
1171	No ASTM	
1228	Alteration (galv. cert)	
1279	Wrong standard referenced	*
1281	No ASTM yr. desig.	
1291	No ASTM	

4001	Wrong standard referenced	*
4005	No plating referenced	*
4018	Wrong standard referenced	*
4021	C of C only	
4023	No standard referenced	*
4041	Wrong standard referenced	*
4047	Wrong standard referenced	*
4048	No standard referenced	*
4058	Wrong standard referenced	*
4060	Wrong standard referenced	*
4064	Wrong standard referenced	*
4069	Wrong standard referenced	*
4075	Wrong standard referenced	*
4080	Wrong standard referenced	*
4088	Wrong standard referenced	*
4100	Wrong standard referenced	*
4128	Wrong standard referenced	*
4131	Wrong standard referenced	*
4221	Wrong standard referenced	*
4286	Wrong standard referenced (plating)	*
4331	No plating ref.	*
4334	Wrong standard referenced (plating)	*
4338	Wrong standard referenced	*
4354	Wrong standard referenced	*
7314	No certs	*

9210	No certs	*
9401	No physicals	
9402	No physicals (coil #125, 126, 127)	
9403	No physicals (coil #118, 119, 120)	
9407	No physicals (coil #110, 111, 112)	
9409	No physicals (coil #180)	
9410	No physicals (coil #113, 114, 115, 116)	
9411	No physicals (2 items)	
9412	No ASTM/yr. designation	
9413	No physicals (coil #156, 157)	
9417	No physicals (coil #101, 102, 103, 104)	
9445	No physicals (coil #202, 203, 204)	
12251	No ASTM/yr. designation	
12310	No ASTM yr.	
12312	Wrong standard referenced	*
12334	Wrong standard referenced	*
12339	Wrong standard referenced	*
12340	Wrong standard referenced	*
13136	No test reports	
13183	No ASTM/yr. desig.	
13206	Wrong standard referenced	*
13215	Wrong standard referenced	*
13220	No ASTM/yr. desig.	
13233	No ASTM/yr.	
13244	Wrong standard referenced	*
13246	No certs (galv.)	

13247	Wrong standard referenced	*
13251	Wrong standard referenced	*
13254	Wrong standard referenced	*
13260	Wrong standard referenced	*
13261	No ASTM yr. design. - C of C only	
13262	Wrong standard referenced	*
13263	Wrong standard referenced	*
13273	Wrong standard referenced	*
13275	No ASTM yr.	
13276	No certs	
13474	No certs	
13299	No ASTM/yr. desig.	
13514	No certs	
14391	No certs	
14665	No certs	
14666	No certs	
15066	No certs	
16255	No certs	

* Possible Engineering disposition required

CLINTON DISCREPANT (OPEN)

561	No certs	
614	Wrong heat #	
624	No physical tests	
668	# of material galvanized does not equal # material received	
696	Wrong standard referenced	*
704	Cert missing (one item)	
745	No physical tests	
757	Wrong standard referenced	*
764	Wrong standard referenced	*
766	Wrong standard referenced	*
804	Wrong standard referenced	*
817	No ASTM/year designation	
827	No ASTM year	
857	No certs	
861	No chemical tests	
986R	No P.O.	
1016	No ASTM	
1021	Alteration (cover letter)	
1063	No ASTM year	
1077	No galvanizing cert	
1108	No certs	
1135	C of C only	
1166	No ASTM	
1171	No ASTM	
1177	No galvanizing cert (one item)	

1186	No ASTM	
1247	No cert (one item)	
1254	No ASTM	
1279	Wrong standard referenced	*
1288	No ASTM year	
1289	No ASTM/year designation	
1316	No ASTM	
1329	No galvanizing cert (one item)	
1375	No ASTM	
4004	Wrong standard referenced	*
4017	No certs	
4081	No ASTM/year designation	
4113	Wrong standard referenced	*
4116	Wrong standard referenced	*
4137	Wrong standard referenced	*
4148	Wrong standard referenced	*
4164	No certs	
4209	Wrong standard referenced	*
4216	Wrong standard referenced	*
4269	Wrong standard referenced	*
4295	Wrong standard referenced	*
4338	Wrong standard referenced	*
4358	No ASTM/year designation	
5357	Missing	
9409	No physical tests	
9410	No physical tests	
9411	No physical tests	

12139	Missing	
12256	Wrong standard referenced	*
12257	Wrong standard referenced	*
12265	Wrong standard referenced	*
12279	Wrong standard referenced	*
12285	Wrong standard referenced	*
12286	Wrong standard referenced	*
12299	Wrong standard referenced	*
12724	Alteration	
13214	Wrong standard referenced	*
13219	No cert (One item)	
13215	No certs	
13280	Wrong standard referenced	*
9445	No physical tests	
15508	No certs	
14436	Missing	
14923	Missing	
14968	Missing	
665	No ASTM/year designation	

* Possible engineering disposition required

LA SALLE DISCREPANT - (OPEN)

451	No ASTM/yr. designation	
452	No ASTM/yr. designation	
454	No certs	
455	No physical tests	
465	No physical tests	
491	Missing	
508	No ASTM/year	
519	No galvanizing cert	
520	No galvanizing cert	
522	No certs	
542	Wrong standard referenced	*
549	No certs	
566	Wrong standard referenced	*
567	No ASTM/year designation	
572	No certs	
566	Wrong standard referenced	*
567	No ASTM/year designation	
572	No certs	
597	Wrong standard referenced	*
599	Missing	
602	No physical tests	
603	No physical tests	
616	No ASTM/year	
617	No ASTM	

627	No ASTM/year designation	
472	No ASTM year	
630	No ASTM	
639	No ASTM/year designation	
651	No ASTM/year designation	
652	No ASTM/year designation	
668	# of material galvanized does not equal # material received	
683	No physical tests	
696	Material not to standard	*
704	Cert missing	
714	No cert	
722	No certs	
764	Wrong standard referenced	*
798	No certs	
804	Material does not meet specification	*
852	Material does not meet specification	*
893	No certs	
909	No ASTM year	
954	No ASTM	
956	No ASTM year	
1186	No ASTM	
1329	No galvanizing cert	
G3111	No ASTM year	
4004	Wrong standard referenced	*
4014	No certs	
4021	C of C only	

4023	No ASTM/year designation	
4048	No ASTM/year designation	
4052	Material does not meet specification	*
4080	Wrong standard referenced	*
4081	No ASTM/year designation	
4105	Wrong standard referenced	*
4137	Wrong standard referenced	*
4157	Wrong standard referenced	*
4205	Wrong standard referenced	*
4216	Wrong standard referenced	*
4268	No certs	
4270	No certs	
4285	Wrong standard referenced	*
4286	Wrong standard referenced	*
4289	No certs	
4294	Wrong standard referenced	*
4312	Missing	
4348	No ASTM/year designation	
5759	No certs	
5776	No certs	
6813	No ASTM/year designation	
9242	No galvanizing certs	
9244	No ASTM/year	
9251	No certs	
9401	No ASTM/year designation	
9402	No ASTM/year designation	
9403	No ASTM/year designation	
9411	No ASTM/year designation	

9412	No ASTM/year designation	
9413	No ASTM/year designation	
9414	No ASTM/year designation	
9415	No ASTM year	
9416	No ASTM year	
9417	No ASTM/year designation	
9419	No ASTM year	
9420	No ASTM year	
9421	No ASTM year	
9422	No certs	
9427	No ASTM year	
9429	No ASTM/year designation	
9442	No certs	
9444	No ASTM/year designation	
9450	No ASTM year	
9455	No ASTM year	
9501	No certs	
9505	No P.O.	
9506	No certs	
9762	No P.O.	
9636	Missing	
10784	No ASTM year	
11237	Wrong standard referenced	*
11271	Missing	
11544	No certs	
12206	Wrong standard referenced	*
12285	No ASTM/year designation	
13246	No ASTM/year designation (zinc plating)	

13912	Missing
16429	Missing
17103	Missing
736	No certs

Note: * Possible engineering disposition required

(25

ALL SITES - DISCREPANT (OPEN)

456	No certs
460	Wrong yr. referenced
464	No phys. - no ASTM yr. - (coil #237, 238, 239 240)
468	No phys.
586	Anomalie
601	No ASTM yr.
604	Cert altered - no ASTM/yr. designation
606	No phys. (OK LaSalle)
609	No phys. (OK LaSalle) (coil #275, 276)
611	No phys. (OK LaSalle) (coil #280, 281, 282, 283)
632	No phys.
633	No phys. - no ASTM/yr. (coil #315, 317, 318)
642	Cert altered - No ASTM/yr. designation
644	No ASTM yr.
652	No phys.
665	No ASTM/yr. designation - no ASTM yr.
684	(N.G. Midland) A500 mtl. to 1974
701	No phys. (coil #359, 360, 361,363)
711	No phys. - alteration #s enhanced
717	No G90 designation
724	Hardness test not identified - no ASTM/yr. designation
738	No phys.
742	Gauge is different
746	No ASTM yr.
752	Rel. gal cert altered (P.O.#) No certs 752-1, 752-2, 752-3 no ASTM

(25

ALL SITES - DISCREPANT (OPEN)

456	No certs
460	Wrong yr. referenced
464	No phys. - no ASTM yr. - (coil #237, 238, 239 240)
468	No phys.
586	Anomalie
601	No ASTM yr.
604	Cert altered - no ASTM/yr. designation
606	No phys. (OK LaSalle)
609	No phys. (OK LaSalle) (coil #275, 276)
611	No phys. (OK LaSalle) (coil #280, 281, 282, 283)
632	No phys.
633	No phys. - no ASTM/yr. (coil #315, 317, 318)
642	Cert altered - No ASTM/yr. designation
644	No ASTM yr.
662	No phys.
665	No ASTM/yr. designation - no ASTM yr.
684	(N.G. Midland) A500 mtl. to 1974
701	No phys. (coil #359, 360, 361,363)
711	No phys. - alteration #s enhanced
717	No G90 designation
724	Hardness test not identified - no ASTM/yr. designation
738	No phys.
742	Gauge is different
746	No ASTM yr.
752	Rel. gal cert altered (P.O.#) No certs 752-1, 752-2, 752-3 no ASTM

(25

762	No ASTM/yr.	
770	No phys. (.036 & .030 mtl)	
797	No phys.	(coil #426, 427)
802	No phys. (Item 5) No gal cert (Item 5) No ASTM/yr. designation	
806	No mtl. certs	
820	No ASTM yr.	
821	No phys.	No ASTM yr.
822	No phys.	No ASTM yr.
823	No phys.	No ASTM yr.
827	No ASTM yr.	
830	Ht #altered	No ASTM
839	Blanket P. O.	
851	No phys.	No ASTM yr. (coil #449, 450, 451, 452, 46
855	No ASTM/yr.	
888	No mtl certs	No ASTM yr.
889	Alteration of P.O.#	
912	No phy.	(OK LaSalle) (coil #462, 463, 482, 499, 50 501, 502)
917	Tensile data added	No ASTM yr.
983	No mtl cert	(coil 515)
987	No ASTM yr.	
1041	Cert altered	No ASTM
1048	No mtl cert (Item 1048-1) chem. on invoice	
1070	No phys.	No ASTM yr.
1076	No ht #	
1089	No mtl certs (item 1089-5)	

1133	No phys.
1195	No chem.
1238	U.S. Steel Supply ltr.
1255	No ASTM
G3114	No ASTM/yr.
4055	No phys. & chem. (Hex nuts)
9247	No ASTM/yr.
11503	No certs (pop rivets)
12238	No certs (malleable clamp)
12281	Wrong std. referenced (nuts)
12303	C of C only (zinc plated rod)
12304	C of C wrong std. (hex nuts)
12434	No certs (butt hinge)
13238	C of C on packing slip (vent glas)
13255	C of C - no std. referenced (tek screws)
13268	C of C - no std. referenced (tek screws)
13293	C of C - wrong std. referenced (nuts-bolts)
9247	No physicals (coil #257, 258, 259, 261, 262, 263, 278, 279)
663	No physicals (coil #347, 348, 349, 350)
803	Material does not meet spec. std.
955	No ASTM

Results/Summary of Review (Fourth Interim)

1. Increase of No. of correct pkgs.

	3rd	to 4th (report)
A. Midland	145	365
B. LaSalle	109	289
C. Clinton	159	327

2. Increase of % of complete pkgs.

A. Midland	26	65.77
B. LaSalle	37	71.36
C. Clinton	42	82.16

3. Approximate % of Engineering Disposition cases

A. Midland	69	12.43
B. LaSalle	36	8.89
C. Clinton	40	10.05

All items not followed by an asterisk can possibly be cleared by continued effort of the Documentation Department in Chicago. Items followed by an asterisk carry the distinct possibility of a need for Engineering disposition/ resolution.

MIDLAND

	#	%
P.O./CMTR Reviewed	555	
P.O. pkgs. accepted as correct	365	65.77
No cert	29	5.22
No physical tests	43	7.75
Wrong standard referenced	44	7.93
Missing	5	1.00
No ASTM/year designation	18	3.24
No ASTM	6	1.08
No ASTM year	15	2.70
C of C only	4	1.00
Material does not meet specification	2	.36
U.S.S. Supply letter (enclosed)	(19)	-
Clerical error(s)	7	1.26
Alteration(s)	9	1.62
No ASTM/yr.	5	1.00

No chemical tests	3	.54

James W Cook
Vice President - Projects, Engineering and Construction

General Offices: 1945 West Parnall Road, Jackson, MI 49201 • (517) 788-0453

July 28, 1983

Mr J G Keppler, Regional Administrator
US Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

MIDLAND ENERGY CENTER PROJECT
DOCKET NOS 50-329 AND 50-330
IE BULLETIN 79-02
FILE: 0505.12 SERIAL: 23757

References: CPCo letters to J G Keppler; Midland Project; Docket Nos 50-329, 50-330; IE Bulletin 79-02:

1) Serial Howe-195-79; dated July 3, 1979
2) Serial Howe-233-79; dated August 15, 1979
3) Serial Howe-84-80; dated May 7, 1980
4) Serial 9107; dated June 9, 1980
5) Serial 10049; dated October 31, 1980
6) Serial 11505; dated February 26, 1981
7) Serial 14636; dated December 15, 1981
8) Serial 17510; dated June 1, 1982
9) Serial 20684, dated January 28, 1983

References 1 through 9 are correspondence which address IE Bulletin 79-02. References 3 through 9 reported that further evaluations and corrective actions were required to completely address 79-02.

Attachment 1 provides another interim report on this subject. Either a final response or a status report will be provided by January 31, 1984.

James W. Cook

JWC/JPK/cd

CC Document Control Desk, NRC
Washington, DC

RJCook, NRC Resident Inspector
Midland Nuclear Plant

OC0783-0040A-MP01

8308160297

123347

REPORT FOR I&E BULLETIN 79-02

SUBJECT: I&E BULLETIN 79-02
"PIPE SUPPORT BASE PLATE DESIGNS USING
CONRETE EXPANSION ANCHOR BOLTS"

INTERIM REPORT

DATE: July 26, 1983

1. Anchor Bolt Use Prohibition

a. An agreement has been reached with the original pipe support design agency to allow a one-time design deviation that permits expansion anchor bolts to remain in the first two supports on either side of a pump, provided the calculated bolt load is 25% or less of the anchor bolt specification allowable. Pipe supports that do not meet these criteria will be reworked.

b. The primary design agency has prepared a report to document their design methodology. The method has been determined to be acceptable. Bechtel review of the first submittal of this report has been completed, and Bechtel comments have been addressed by the design agency in a revised report. Bechtel review of the revised report will be completed by September 30, 1983.

c. Discrepant pipe support designs issued by the pipe support design agency and documented on nonconformance reports have been dispositioned. All pipe support designs issued by the primary pipe support design agency are being rereviewed for proper anchor bolt usage. This review is now being conducted to a priority based on the seimsic reanalysis schedule rather than the turnover schedule as previously stated. The new schedule for completion of the review is now anticipated to be November, 1983.

2. Determination of Proper Embedment Depth

a. The inspection of anchor bolts used for pipe supports is addressed in Section 6.

b. It has been concluded that no further testing and inspection for embedment depth is required for expansion anchors used on non-pipe support applications. This conclusion is based

23347

on the results of the reinspections of expansion anchors used on pipe supports, and heating, ventilating, and air conditioning Seismic Category I support applications.

Reinspection and testing in accordance with project specifications (issued to satisfy the requirements of I&E Bulletin 79-02) for pipe support anchors installed before May 30, 1980, was completed. Of 1,631 expansion anchors reinspected, 65 did not meet the requirements for embedment depth. These results indicate, with a 95% confidence level, that over 95% of the anchors satisfies the criteria for embedment length. Additional reinspection and testing of expansion anchors used for heating, ventilating, and air conditioning Seismic Category I supports was performed. Of 4,565 expansion anchors reinspected, 72 did not meet the requirements for embedment depth. These results also indicate, with a 95% confidence level, that over 95% of the anchors satisfies the criteria for embedment depth.

c. The controls initiated in May, 1980 for length marking and quality control inspection (MCAR 31) provide assurance that embedment depth will not pose a problem.

3. Demonstration of Achievement of Required Factor of Safety

a. Midland-specific tests to determine the amount of preload remaining in the bolt indicate that an average of 37% of the original preload remains in the bolt after 1 year. Other tests (References A and B) have established that the amount of preload on the bolts will not affect the preformance of the anchorage. If the initial installation torque on the bolt accomplishes the purpose of setting the wedge, then the ultimate capacity of the bolt is not affected by the amount of preload present in the bolt at the time of cyclic loading. These tests (Reference A and B) indicate no anchor pullout failures occurred as a result of cyclic loading and that preload is not required to withstand cyclic loading. A revised response to I&E Bulletin 79-02 has been completed.

b. An additional static tension test (Reference C) to supplement the manufacturer's data was completed. The final report, combined with the manufacturer's data, establishes that all sizes of expansion anchors used for pipe supports under the scope of I&E Bulletin 79-02 on the Midland project met the required factor of safety for pullout.

12334.7

MCAR Status

a. MCAR 34:

Bechtel Management Corrective Action Report (MCAR) 34 final report, concerning installed drop-in anchors, has been issued. No further new corrective action is required. Required rework has been completed and MCAR 34 was closed on December 14, 1982.

b. MCAR 31:

MCAR 31 revised final report, concerning embedment depth of expansion anchors, was issued May 10, 1982. Corrective actions associated with MCAR 31 are complete and the MCAR was closed on May 24, 1982.

5. Reportability Review

Review of the results of the inspection and tests identified no items with a safety impact. Results of future analyses will be reviewed for reportability under 10 CFR 50.55(e).

6. Additional Expansion Anchor Inspections

Inspection of 100% of the accessible pipe support expansion anchors installed before May 30, 1980, is complete. An evaluation of the adequacy of the inaccessible anchors (less than 6.7% for any parameters), based on the inspection results of the accessible anchors, is now complete. As a result of this review, it has been determined that no rework of the inaccessible anchors will be required. Identification and completion of the rework for the inspected anchors is now approximately 90% complete. The remaining 10% will be reworked as part of the Construction Completion Program (CCP). A detailed schedule for system completion under CCP is currently being developed. Actual implementation is subject to NRC concurrence that work can proceed. It is anticipated that an actual schedule will be available for inclusion in the next report.

REFERENCES

A. Teledyne Engineering Services Technical Report 3501-2 for Utilities/TES Owners Group Summary Report Generic Response to US NRC I&E Bulletin 79-02.

B. Commonwealth Edison Company Summary Report, Static, Dynamic and Relaxation Testing of Expansion Anchors in Response to NRC I&E Bulletin 79-02.

C. Final Report on Concrete Expansion Anchor Static Tension Tests for Bechtel Power Corporation, March, 1982, Wiss, Janney, Elatner and Associates, Inc.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

June 9, 1983

PRINCIPAL STAFF

Pls Return to DE

Docket Nos.: 50-329 OM, OL
50-330 OM, OL

MEMORANDUM FOR: The Atomic Safety and Licensing Board for the Midland Plant, Units 1 and 2

FROM: Thomas M. Novak, Assistant Director for Licensing
Division of Licensing

SUBJECT: BOARD NOTIFICATION - ZACK REPORT ON WELDER RECORD DISCREPANCIES (83-79)

This information is provided in accordance with the present NRC procedures regarding Board Notifications.

The enclosed Zack report constitutes a followup item to BN 82-94, "Zack Part 21 Report on Welder Record Discrepancies." BN 82-94 indicated that Zack would be investigating a potential 10 CFR 21 reportable deficiency regarding accuracy of welder records. The enclosed report documents Zack's investigation and subsequent decision that this item does not constitute a 10 CFR 21 deficiency.

Thomas M. Novak, Assistant Director
for Licensing
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosure
Zack Report

cc: See next page

8306170448

JUN 17 1983

DISTRIBUTION LIST FOR BOARD NOTIFICATION

Midland Units 1&2,
Docket Nos. 50-329/330

Charles Bechhoefer, Esq.
Ms. Lynne Bernabei
James E. Brunner, Esq.
Dr. John H. Buck
Myron M. Cherry, P.C.
Dr. Frederick P. Cowan
T. J. Creswell
Steve J. Galder, P.E.
Dr. Jerry Harbour
Mr. Wayne Hearn
Mr. James R. Kates
Frank J. Kelley, Esq.
Christine N. Kohl, Esq.
Mr. Wendell H. Marshall
Michael I. Miller, Esq.
Thomas S. Moore, Esq.
Mr. Paul Rau
Ms. Mary Sinclair
Ms. Barbara Stamiris
Frederick C. Williams, Esq.

Atomic Safety and Licensing
Board Panel
Atomic Safety and Licensing
Appeal Panel
Docketing and Service Section
Document Management Branch

ACRS Members

Dr. Robert C. Axtmann
Mr. Myer Bender
Dr. Max W. Carbon
Mr. Jesse C. Ebersole
Mr. Harold Etherington
Dr. William Kerr
Dr. Harold W. Lewis
Dr. J. Carson Mark
Mr. William M. Mathis
Dr. Dade W. Moeller
Dr. Milton S. Plesset
Mr. Jeremiah J. Ray
Dr. David Okrent
Dr. Paul C. Shewmon
Dr. Chester P. Siess
Mr. David A. Ward

MIDLAND (For BNs)

Mr. J. W. Cook
Vice President
Consumers Power Company
1945 West Parnall Road
Jackson, Michigan 49201

cc: Stewart H. Freeman
Assistant Attorney General
State of Michigan Enviornmental
Protection Division
720 Law Building
Lansing, Michigan 48913

Mr. Paul Rau
Midland Daily News
124 McDonald Street
Midland, Michigan 48640

Mr. R. B. Borsum
Nuclear Power Generation Division
Babcock & Wilcox
7910 Woodmont Avenue, Suite 220
Bethesda, Maryland 20814

Mr. Don van Farrowe, Chief
Division of Radiological Health
Department of Public Health
P.O. Box 33035
Lansing, Michigan 48909

U.S. Nuclear Regulatory Commission
Resident Inspectors Office
Route 7
Midland, Michigan 48640

Mr. Paul A. Perry, Secretary
Consumers Power Company
212 W. Michigan Avenue
Jackson, Michigan 49201

Mr. Walt Apley
c/o Mr. Max Clausen
Battelle Pacific North West Labs (PNWL)
Battelle Blvd.
SIGMA IV Building
Richland, Washington 99352

Mr. 1. Charak, Manager
NRC Assistance Project
Argonne National Laboratory
9700 South Cass Avenue
Argonne, Illinois 60439

James G. Keppler, Regional Administrator
U.S. Nuclear Regulatory Commission,
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Mr. Ron Callen
Michigan Public Service Commission
6545 Mercantile Way
P.O. Box 30221
Lansing, Michigan 48909

Geotechnical Engineers, Inc.
ATTN: Dr. Steven J. Poulos
1017 Main Street
Winchester, Massachusetts 01890

Billie Pirner Garde
Director, Citizens Clinic
for Accountable Government
Government Accountability Project
Institute for Policy Studies
1901 Que Street, N.W.
Washington, D. C. 20009

Commander, Naval Surface Weapons Center
ATTN: P. C. Huang
White Oak
Silver Spring, Maryland 20910

Mr. L. J. Auge, Manager
Facility Design Engineering
Energy Technology Engineering Center
P.O. Box 1449
Canoga Park, California 91304

Mr. Neil Gehring
U.S. Corps of Engineers
NCEED - T
7th Floor
477 Michigan Avenue
Detroit, Michigan 48226

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

JUN 0 1 1983

MEMORANDUM FOR: D. G. Eisenhut, Director, Division of Licensing, NRR

FROM: R. F. Warnick, Director, Office of Special Cases

SUBJECT: RECOMMENDATION FOR FOLLOWUP NOTIFICATION OF LICENSING BOARD

REFERENCES: BOARD NOTIFICATION - ZACK PART 21 REPORT ON WELDER RECORD DISCREPANCIES (BN 82-94)

Enclosed is the Zack investigation report of the welder record discrepancies identified previously in the referenced Board Notification. The Zack Company is a heating, ventilation, and air conditioning (HVAC) subcontractor at three power plant construction sites within Region III (Clinton, LaSalle and Midland). ~~The subject investigation report~~ serves as the basis for Zack's decision to withdraw its report of a potential 10 CFR 21 concerning the welder record discrepancies.

If you have any questions or desire further information regarding this matter, please call me.

RF Warnick

R. F. Warnick, Director
Office of Special Cases

Enclosure: As stated

cc w/encl:
A. B. Davis
J. J. Harrison
R. N. Gardner
R. B. Landsman
R. J. Cook

dupe of ~~8406030077~~

4600 W. 12TH PLACE • CHICAGO (CICERO) ILL 60650 • 312/242-3434
4401 WESTERN • FLINT MICHIGAN 48506 • 313/736-2040

the ZACK co.

CUSTOM METAL FABRICATION

September 28, 1982

7220-M-151-C/B-643

Mr. L.E. Davis
Site Manager
Bechtel Power Corp.
P.O. Box 2167
Midland, Michigan 48640

Subject: INVESTIGATION INTO APPARENT DISCREPANCIES IN WELD RECORDS

Mr. Davis,

Recently, as the result of a Zack Company report to Region III of the U.S.N.R.C. of a potential 10CFR21 condition, the Zack Company conducted an investigation into approximately 11,400 Travelers that exhibited conditions that put the authenticity of the welder of record in question.

This condition came to light when approximately 11,400 zerox copies of Shop Travelers were discovered while Zack personnel were attempting to discard them. A cursory initial review revealed that these photocopies contained welder identification and other fabrication information. It was decided that a small-scale comparison to the Record Copy of these photocopied Travelers should be made.

During the comparison, it was noted that, in most cases, the photocopy Traveler did not match the Record Copy in that different initials both in quantity and identification, appeared on the photocopy than were indicated on the Record Copy.

At this point, it was decided by the Zack Company that a full-scale investigation was required, that a potential 10CFR21 condition existed, and that the U.S.N.R.C. should be notified.

The U.S.N.R.C. was notified on July 29, 1982 and a full-scale investigation was initiated. As a result of this investigation, the Zack Company officially withdrew its report of a potential 10CFR21 on September 14, 1982 as it was determined by Zack Company Quality Assurance and Zack Company Management that a 10CFR21 condition did not exist.

cont'd on page 2

Mr. L.E. Davis
Midland, Michigan

September 28, 1982
7220-M-151-C/B-643

Following, for your information, is an in-depth report on the investigation and the results as they affect the Midland Project.

Sincerely,

Raymond J. Basiaga

Raymond J. Basiaga
Lead Q.A. Engineer

RJB/lf
Encl.

CC: H. Leonard, CPCO
R. McCarley, Zack
C.Z. DeZutel
J.C. DeZutel
D. Calkins
D. Malzahn
M. Skates
Doc. Control File
Q.A. File

INVESTIGATION INTO
APPARENT DISCREPANCIES IN WELD RECORDS
RELATIVE TO THE MIDLAND PROJECT

Sept. 27, 1982

Type of

~~8406090080~~

The condition that was investigated to determine if it failed to comply with the Atomic Energy Act of 1954 as amended, or that the components supplied contained defects which could create a "substantial safety hazard", was due to the apparent discrepancy between "working" (photocopy) copies of Shop Travelers containing welder identifications and the official Quality Record Copies (yellow) of these Travelers which contained conflicting welder identifications.

Overall, the Travelers with discrepancies were found to have been used to fabricate HVAC components to be installed at all three currently active contract facilities, but were limited to work performed at the Zack Company facilities at Cicero, Illinois and Chicago, Illinois. Information in this report pertains to MIDLAND PROJECT only.

The Travelers in question are part of a system utilized by the Zack Company to record as-built, as-welded conditions and inspection verifications for fabricated HVAC components. Certain "working" (photocopy) copies of the official Travelers utilized by production tradesmen contain the initials/numbers of various personnel who apparently performed some work function on the component(s) listed on an individual Traveler. Relevant information such as welder identification was then transferred to the official Record Copy (yellow).

These "working" copies were reviewed against the official copy and all discrepancies between the two were noted and evalutated to determine if they would create a substantial safety hazard.

The investigation had two (2) specific goals:

A. To determine if the inconsistancies between the "working" copies and the original Travelers could result in a condition that would create a substantial safety hazard.

B. To determine if the individual(s) involved were trying to remove evidence of a deviation with malice aforethought.

The following action plan and work assignments were directed at achieving goal "A" above. Zack Company Management in conjunction with legal advisors addressed the resolution of goal "B" above.

To determine if the inconsistancies resulted in a substantial safety hazard, they were collated, reviewed, catagorized and evaluated.

"Working"Copies were collated by:
1. Project
2. Safety related/Non-Safety related
3. By the type of information contained on the "working" copy.

This report deals only with Travelers identified as safety related.

The following types of information were obtained and used to provide background and to substantiate the validity of the records.
A. Payroll records to set time frames for welders employment at Zack.
B. Load Shipment Dates to support work and inspection dates.
C. Welder hire dates, qualification dates and termination dates.
D. Support personnel hire, and termination dates (i.e. cleaners, inspectors, etc.)
E. Weld wire issue dates for Plant 2 (Kilbourn Avenue).

Using the above information, the review process was started and progressed as described on page 4.

The first review identified all "working" copies that contained no fabrication or identification information and, therefore, could not disagree with the Record Copy. These were put in numerical order, cataloged and removed from further consideration.

The second review compared the "working" copies to the Record Copies (which had been removed from file for this comparison) for the following:

A. Unqualified welders indicated on the working copy.
B. Welders listed on the "working" copy that did not appear on the Record Copy.
C. Any personnel identifications on the "working" copy (i.e. initials or I.D. numbers) not immediately identifiable.
D. "Working" copy in total agreement with Record Copy.
E. To note any other variations or discrepancies.

The above information was catagorized as stated below.

CATEGORY 1 - (Indicated by "Yes" on tally sheets) - "working" copy and Record Copy agree and welder(s) qualified. (Item D above).

CATEGORY 2 - (Indicated by "Yes X" on tally sheets) - "working" copy and Record Copy differ with all welders involved being qualified. (Item B above).

CATEGORY 2 - (Indicated by "No" on tally sheets) - "working" copy and Record Copy differ and unable at this stage to establish if all welders are qualified. (Items A and C above).

At this point in time, Catagories 1 and 2 were eliminated from further review as it was determined that no serious problem existed as long as all welders identified were qualified.

Category 3 was further broken down as follows.

A. Date discrepancies exist for welder qualification because of inability to establish actual work or inspection dates.
B. No weld procedure was listed on "working" or Record Copy.
C. Two weld procedures were listed on either copy, but welders listed were qualified to only one or to neither.
D. Welder apparently not qualified or unidentifiable initials on either copy.

E. Welder not qualified on best available indication of work date, but qualified at a later date.
   1. Qualification not prior to Traveler issue date, no work/inspection date available.
   2. Qualification not prior to actual work/inspection date.

F. Miscellaneous variations or discrepancies.

To provide the most expeditious handling of this volume of paperwork through the review cycle to this point while maintaining the level of integrity required, the Zack Company brought in five (5) Engineers from one of our field operations to assist in the review.

Internal departments provided the following support.

DRAFTING DEPT: Located and matched record copies with "working" copies.

ENGINEERS: Reviewed "working" copies vs. Record Copies, noted and recorded and categorized differences.

DOCUMENT CONTROL: Provided control and security for all relevant documents and assisted in logging/filing operations.

The above group operated under Mr. Tom DeLafosse, Project Coordinator who was assigned the Lead Function.

ACCOUNTING DEPT: Provided payroll and employment records to validate time frames for individual welders' work, and for various other support personnel.

Q.A. DEPT: Developed welder and cleaner/inspector matrixes and functioned as part of the review team.

The above group operated under Mr. Ray Basiaga, Lead Q.A. Engineer who was assigned the Lead Function.

CORPORATE MANAGEMENT provided coordination, additional required management, individuals relevant to the investigation for interview, review and approval of all phases of the review and support to all individuals involved throughout the effort.

All relevant personnel were interviewed during the various phases of the investigation and said interviews were documented when deemed appropriate. Information obtained in this form that was based facts, not opinion, and that could be substantiated, was used in the evaluation. All other information was simply recorded and included for information only.

The final evaluation of the Travelers in Category Three (3) ("No") was conducted by Mr. Dave Calkins, Manager of Nuclear Construction, Mr. Tom DeLafosse, Project Coordinator and Mr. Ray Basiaga, Lead Quality Assurance Engineer.

The goal of the final evaluation was to determine if the inconsistancies noted on all copies of the remaining Category Three (3) ("No") Travelers raised any questions as to the quality of the workmanship.
The final evaluation utilized the finalized welder qualification matrix containing all information available from Pittsburgh Testing Laboratories in addition to information on file at the Zack Company. This matrix included welder name, I.D. No., hire date, termination date, and qualification date for each welding process.

Also utilized was a listing of shop cleaning and inspection personnel. This list was compiled from personnel records and verified by plant supervision. This list included name, I.D. No., hire date, termination date and position.

The following shop practices, confirmed by interview, were considered credible and accepted as valid for the purpose of the final review.

1. Shop Personnel often marked dimensional, operational or identification information on the "working" copy of the Traveler. This information was not required to be on the Record Copy of the Traveler by either procedure or regulation.

2. Cleaning Personnel generally circled their initials or I.D. No.
3. Layout or Cutting Personnel generally initialed their work within the cut list portion of the Traveler.
4. Inspection Personnel identified by their initials, symbol or I.D. No., were considered as acceptable as none have ever worked for the Zack Company as welders.
5. Welders normally initialed beside the work they performed and indicated completion with the word "out".
6. Sheet Metal workers from various locals are generally not qualified to AWS Standards. The Zack Company often had these personnel working as helpers with Zack Company certified AWS qualified welders until they became familiar with AWS Standards and Zack procedures. Their initials on the "working" copy do not indicate that they welded, but served as a means of tracking their training. However, for purposes of this report, it has been assumed that they did weld and were evaluated accordingly.

The results of the comparison between the "working" copies and Record Copies of Shop Travelers are included as attachments. The attachments are collated in progression from the earliest results to the final results.

In conclusion, a complete and thorough investigation has been conducted by the Zack Company of the information contained on the "working" copies and Record Copies of Shop Travelers.

This investigation has revealed that in some cases there is additional and/or different information on the "working" copies than on the Record Copies. There is, however, no basis for establishing that the "working" copy is complete and correct or that the Record Copy is in error. The Zack Company has taken the position that the "working" copies will be attached to the Record Copy and retained as a part of the permanent record thereby accounting for all personnel with any possible relevance to the work. It is also the position of the Zack Company that any individual identified by initials or I.D. No. on either copy, who ever worked as a welder during his term of

employment with the Zack Company, was to be considered a welder at the time his identification was put on the Traveler.

Accepting this as the worst possible condition, the Zack Company has been able to account for all persons identified on the Travelers in question. On over 96% of the Travelers, all individuals identified as welders were qualified at the time the work was performed. For the remaining Travelers, all welders with the exception of Mr. Ken Gibson, were qualified at a later date. Of these fourteen (14) welders, six (6) were qualified within thirty (30) days, the remaining eight (8) within six (6) months.

It was upon assurance that the welders were qualified in accordance with applicable codes, regulations, and/or contractual requirements and that all welds were inspected to respective criteria that the determination was made that no "Defect", as defined in 10CFR21 Para. 21.3D existed, and it was at this time that our report to the U.S.N.R.C. was withdrawn.

With regard to Mr. Ken Gibson, the Zack Company has recognized that it never certified Mr. Gibson in accordance with the requirements of the AWS Code. However, this in no way implies that Mr. Gibson was not a qualified welder or deminishes his ability to produce quality welds in accordance with Zack Company approved weld procedures.

Mr. Gibson has been involved in and been a qualified welder working for various mechanical contractors over the past sixteen (16) years. He has been qualified with the Zack Company at the Clinton Nuclear Project for the past twenty (20) months. Therefore, while the Zack Company may have been remiss in not having put Mr. Gibson through the certification process, it should be noted that this in no way detracts from his previous qualifications and ability to produce sound, quality welds.

Mr. Gibson only worked in the Zack Company, Chicago facility, for a period of four (4) months between July, 1978 and November, 1978 and was responsible for welds on one (1) Traveler for the Midland Project. This discrepancy with respect to Mr. Gibson's qualifications and the Midland Traveler, is an internal Zack Company procedural violation only. Mr. Gibson's welds were inspected and accepted to the same standards all other welders are required to meet.

The one Traveler (F6654) welded by Mr. Gibson is still in existance at the Midland Project for one transition piece. This piece will be reinspected and replaced by the Zack Company if found unacceptable.

The following events were considered relevant in either understanding the reasons the inconsistancies could have occurred or in judging that the inconsistancies did not indicate a significant problem:

The Zack Company went from a single plant operation to a two-plant operation at the opening of its Chicago facility on Kilbourn Avenue. The plant was purchased in February, 1979 and after initial refurbishment it was made operational in May, 1979 and was operated until November 1981. The transition from a single plant operation to a two-plant operation was coupled with the build-up in personnel could account for a part of the delay in qualifying a few welders in a timely manner.

Various inspections by both Zack Company personnel and client personnel (see attachments) have re-established the quality of the welds irrespective of the documented qualifications of the welders.

In any event, I believe that the Zack Company has proved that a serious systemic problem does not, nor did not exist. A distribution of the dates of occurrence of discrepant Travelers is attached for your information.

Please review this report and its attachments to determine if a 50.55.E Report is required on your part.

Any and all questions concerning this matter should be directed to the Zack Company Quality Assurance Department.

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS Pg 20
F10482	39	12/3/79	1/10/80	OK	YES	
F10429	12	12/3/79	1/10/80	OK	YES	
F10428	21	12/3/79	1/10/80	OK	YES	
F10285	6	12/3/79	1/10/80	OK	YES	
F10269	23	12/3/79	1/10/80	OK	YES	
F10286	5	12/3/79	1/10/80	OK	YES	
F10132	21	12/3/79	1/10/80	OK	YES	
F10268	34,30	12/3/79	1/10/80	30, 1/22/80	NO /	
F10264	26	12/3/79	1/10/80	OK	YES	
F10265	34	12/3/79	1/10/80	OK	YES	
F10261	48	12/3/79	1/10/80	OK	YES	
F10130	48	12/3/79	1/10/80	OK	YES	
F10128	5,6	12/3/79	1/10/80	OK	YES X	
F10125	34,6	12/3/79	1/10/80	OK	YES X	
F10124	21	12/3/79	1/10/80	OK	YES	
P1203	34	9/18/79	1/9/80	OK	YES	
P1201	34,54	9/18/79	1/9/80	54 1/22/80	NO /	
P1185	26	10/2/79	1/9/80	OK	YES	
F8766	34	10/15/79	1/9/80	OK	YES	
F6456	48,54	8/10/79	1/9/80	54 1/22/80	NO /	
F8767	34,26 or 52	10/15/79	1/9/80	52 3/15/80	NO ? /	
F8768	26	10/15/79	1/9/80	OK	YES	
F8769	26	10/15/79	1/9/80	OK	YES	
F8798	39,26 or 52	10/15/79	1/9/80	52 3/15/80	NO ? /	
F8797	12	10/15/79	1/9/80	OK	YES	
F8799	39	10/15/79	1/9/80	OK	YES	
F8860	39	10/10/79	1/9/80	OK	YES	
F8816	34,54	10/10/79	1/9/80	54 1/22/80	NO /	
F8810	5	10/10/79	1/9/80	OK	YES	
F8809	5	10/10/79	1/9/80	OK	YES	
	12					

MIDLAND

YES - 23
YES X - 2
NO - 6

CLASS I

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
P3611	23,12	3/81	4/28/81	OK	YES	
P3608	21,12,34	3/81	4/28.81	OK	YES	
P3606	23,21,63	3/81	4/28/81	OK	YES	
P3605	20,63,21	3/81	4/27/81	OK	YES	
P3604	12,23	3/81	4/29/81	OK	YES	
P3601	34,12	3/81	4/27/81	OK	YES	
F12055	12	3/81	4/21/81	OK	YES	
F2853	63,20	1/81	2/19/81	OK	YES	
F2523	21,20	1/81	4/21/81	OK	YES	
F2226	21,23	4/81	4/21/81	OK	YES	
F2225	21,34	4/81	4/21/81	OK	YES	
F2222	21,23	4/81	4/12/81	OK	YES	
F2082	12,21,63	3/81	4/17/81	OK	YES	
F2050	12,21	4/81	4/21/81	OK	YES	
F2049	12,23	4/81	4/21/81	OK	YES	
F2048	21,12,34	4/81	4/21/81	OK	YES	
F2047	63,21,12	4/81	4/17/81	OK	YES	
F2033	23,34	3/81	4/17/81	OK	YES	
F2030	34,63	3/81	4/17/81	OK	YES	
F2029	34,12	3/81	4/17/81	OK	YES	
F10487	48	12/3/79	1/10/80	OK	YES	
F10488	5	12/3/79	1/10/80	OK	YES	
F10484	6,54	12/3/79	1/10/80	54 - 1/22/80	NO /	
F10494	48	12/3/79	1/10/80	OK	YES	
F10493	5	12/3/79	1/10/80	OK	YES	
F10491	5	12/3/79	1/10/80	OK	YES	
F10489	34,26 or 52	12/3/79	1/10/80	52 3/15/80	NO? /	
F10490	6	12/3/79	1/10/80	OK	YES	
F10497	48	12/3/79	1/10/80	OK	YES	
F10480	39	12/3/79	1/10/80	OK	YES	
F10481	39	12/3/79	1/10/80	OK	YES	

MIDLAND

YES - 29
YES X - 0
NO - 2

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F2224	21,63,5	4/81	4/21/81	OK	YES X	
F2116	23,21	4/81	5/7/81	OK	YES	
P3041	34,23	12/80	5/14/81	OK	YES	
P3035	23,12,21,20	12/80	5/8/81	OK	YES X	
P3040	34,63,23	12/80	5/1/81	OK	YES	
P3038	23,34,12	12/80	5/1/81	OK	YES	
P3037	21	12/80	5/5/81	OK	YES	
P3033	23	12/80	5/4/81	OK	YES	
P3036	12,21,23	12/80	5/1/81	OK	YES	
P3034	21,63,23	12/80	5/1/81	OK	YES X	
P3031	34,12	12/80	4/30/81	OK	YES X	
P3030	34	12/80	5/5/81	OK	YES	
P3029	34,23	12/80	5/6/81	OK	YES	
F13782	63	12/80	5/6/81	OK	YES	
F13789	34	12/80	5/5/81	OK	YES	
F13784	23	12/80	5/6/81	OK	YES	
F13788	63	12/80	5/5/81	OK	YES	
F13787	63	12/80	5/6/81	OK	YES	
F13786	21	12/80	5/4/81	OK	YES	
F13783	63	12/80	5/1/81	OK	YES	
F13781	63	12/80	5/5/81	OK	YES	
F13763	63	12/80	5/1/81	OK	YES	
F13762	12	12/80	5/6/81	OK	YES	
P3032	12,23,34,12	12/80	5/8/81	OK	YES	
F13761	12	12/80	5/4/81	OK	YES	
F13760	63	12/80	5/5/81	OK	YES	
P3609	12,21	3/30/81	5/4/81	OK	YES	
P3610	34,63	3/30/81	5/4/81	OK	YES	
P3614	21	4/81	4/21/81	OK	YES	
P3613	21,63	4/81	4/21/81	OK	YES	
P3612	34.63	4/81	4/29/81	OK	YES	

MIDLAND

YES - 27
YES X - 4
NO - 0

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS Pg 23
F10048	48,26	11/16/79	1/15/80	OK	YES	
F10050	5	11/16/79	1/15/80	30, 1/22/80	NO ✓	
F10057	5,26	11/19/79	1/15/80	OK	YES	
F10058	5	11/19/79	1/15/80	OK	YES	
F10059	12	11/19/79	1/15/80	OK	YES	
F10063	34	11/19/79	1/15/80	OK	YES	
F10068	12	11/19/79	1/15/80	OK	YES	
F10008	23,26	11/15/79	1/15/80	OK	YES X	
F8861	48	10/10/79	1/15/80	OK	YES	
F8859	12	10/10/79	1/15/80	OK	YES	
F8812	34	10/10/79	1/15/80	OK	YES	
F10427	34	12/10/79	1/10/80	OK	YES	
F10486	48	12/3/79	1/10/80	OK	YES	
P1638	48	1/9/80	1/9/80	OK	YES	
P1490	34	12/10/79	1/9/80	OK	YES	
F10485	6,54	12/3/79	1/10/80	54, 1/22/80	NO ✓	
P1493	34	12/10/79	1/9/80	OK	YES	
F13299	26,12,5	10/80	10/28/80	OK	YES X	
F13297	12,34	10/80	10/28/80	OK	YES	
F13298	12,5	10/80	10/28/80	OK	YES	
F13296	12,34,21	10/80	10/27/80	OK	YES X	
F12495	12,54	10/80	10/28/80	OK	YES	
F12492	12,23	10/80	10/28/80	OK	YES	
F12490	12,26	2/80	10/28/80	OK	YES	
F12481	26,54,12	2/80	10/28/80	OK	YES X	
F12468	26,23,12	2/80	10/30/80	OK	YES X	
F12467	26,12	2/80	10/30/80	OK	YES X	
P3330	26,54	2/80	10/28/80	OK	YES	
P3327	54,68,12,26	2/80	10/28/80	OK	YES	
P3779	23,54	3/81	5/7/81	OK	YES	
F2224	21,63,5	4/81	4/21/81	OK	YES X	

MIDLAND

YES -22
YES X - 7
NO - 2

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F13303	12,54	10/80	10/28/80	OK	YES	
F10131	21	11/26/79	1/15/80	OK	YES	
F10129	6,12	11/26/79	1/16/80	OK	YES X	
F10126	6	11/26/79	1/16/80	OK	YES	
F10127	34	11/26/79	1/16/80	OK	YES	
F10049	26	11/7/79	1/14/80	OK	YES	
F10051	34	11/16/79	1/15/80	OK	YES	
F10066	26,30	11/19/79	1/14/80	30, 1/22/80	NO /	
F10053	21	11/16/79	1/14/80	OK	YES	
F10067	21	11/19/79	1/14/80	OK	YES	
F10071	39	11/19/79	1/14/80	OK	YES	
F10013	12	11/15/79	1/14/80	OK	YES	
F8863	5	10/10/79	1/14/80	OK	YES	
F8733	21	10/2/79	1/15/80	OK	YES	
F8732	21	10/2/79	1/15/80	OK	YES	
F8802	34	10/15/79	1/15/80	OK	YES	
F8735	21	10/2/79	1/15/80	OK	YES	
P1513	21,6,12	11/16/79	1/15/80	OK	YES X	
P1522	23,48	11/15/79	1/15/80	OK	YES X	
P1514	21,30	11/16/79	1/15/80	30, 1/27/80	NO /	
P1512	34	11/19/79	1/15/80	OK	YES	
P1523	26,48,DL	11/15/79	1/15/80	DL?	NO? /	
P1511	34,54,5	11/19/79	1/15/80	54, 1/22/80	NO /	
P1510	39 WI GS	11/19/79	1/15/80	WI, GS	NO? /	
P1509	12	11/19/79	1/15/80	OK	YES	
P1113	21	8/10/79	1/15/80	OK	YES	
P10262	34,54	12/10/79	1/15/80	54, 1/22/80	NO /	
F10266	26	12/10/79	1/15/80	OK	YES	
F10260	34	12/10/79	1/15/80	OK	YES	
F10009	34,26	11/15/79	1/15/80	OK	YES X	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	YES	

MIDLAND

YES - 21
YES X - 4
NO - 6

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F12256	21,12,23	2/80	12/17/80	OK	YES	
F12255	12	2/80	12/17/80	OK	YES	
F10656	23	2/80	10/31/80	OK	YES	
F2335	26	2/80	1/6/81	OK	YES	
F2319	23,5	12/80	1/6/81	OK	YES	
F2318	23,12,21	12/80	1/6/81	OK	YES X	
P3393	23	11/80	16/81	OK	YES	
P3392	23,26	11/80	1/6/81	OK	YES	
P3391	26,5	11/80	1/6/81	OK	YES	
P3388	23,26	11/80	1/6/81	OK	YES	
P3389	23	11/80	1/6/81	OK	YES	
P3386	23,26	11/80	1/6/81	OK	YES	
P3018	5	11/80	12/17/80	OK	YES	
P2990	26,23	11/80	12/2/80	OK	YES	
P2292	5,21	11/80	12/31/80	OK	YES	
P2989	5	11/80	12/17/80	OK	YES	
P2988	12/5	11/80	12/17/80	OK	YES	
P2986	5,26,34	11/80	12/3/80	OK	YES	
P2984	12,5	11/80	12/17/80	OK	YES	
P2977	26,5,34	11/80	12/2/80	OK	YES	
P2978	12,26	11/80	12/2/80	OK	YES	
P2976	23,34,54	11/80	12/2/80	OK	YES	
P2975	5,23,63,26	11/80	12/2/80	OK	YES	
P2974	5,63,26	11/80	12/2/80	OK	YES	
P2973	63,12,26	11/80	12/2/80	OK	YES	
P2972	12,63,34,2	11/80	12/2/80	OK	YES	
P2955	21,5	11/80	12/17/80	OK	YES	
F12501	21	2/80	10/27/80	OK	YES	
F12475	N/A	2/80	11/21/80	N/A	N/A	
F2333	5,34	11/80	12/17/80	OK	YES	
F13302	12,23	10/80	10/28/8		YES	

MIDLAND

YES - 29
YES X - 1
NO - 0

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS Pg 26
F13498	34,54	11/80	12/2/80	OK	YES	
F13488	34	11/80	12/2/80	OK	YES	
F13485	34,5	11/80	12/2/80	OK	YES	
F13487	12	11/80	12/1/80	OK	YES	
F13486	12,34	11/80	12/2/80	OK	YES	
F13484	26,23	11/80	12/2/80	OK	YES	
F13483	26,54	11/80	12/2/80	OK	YES	
F13482	26,63	11/80	12/2/80	OK	YES	
F13480	26,34,12	11/80	12/2/80	OK	YES	
F13304	21,12	10/80	12/15/80	OK	YES	
F13301	26,63	10/80	10/25/80	OK	YES	
F13239	12,34	10/80	12/1/80	OK	YES	
F13238	12,34	10/80	12/1/80	OK	YES	
F13100	12,21	10/80	12/1/80	OK	YES	
F12500	21,26	2/80	10/27/80	OK	YES	
F12491	21,12	2/80	12/15/80	OK	YES	
F12479	21,34	2/80	12/2/80	OK	YES	
F12476	21,63	2/80	12/2/80	OK	YES	
F12472	21,34	2/80	12/2/80	OK	YES	
F12469	34	2/80	12/13/80	OK	YES	
F12466	54,26,21	2/80	10/27/80	OK	YES	
F12454	5	2/80	1/5/81	OK	YES	
F12453	5	2/80	1/5/81	OK	YES	
F12260	21,12	2/80	12/17/80	OK	YES	
F12265	21	2/80	12/17/80	OK	YES	
F12262	21,12	2/80	12/17/80	OK	YES	
F12261	21,26	2/80	12/17/80	OK	YES	
F12263	21,12,26	2/80	12/17/80	OK	YES	
F12258	21,12,26	2/80	12/17/80	OK	YES	
F12259	21,12	2/80	12/17/80	OK	YES	
F12267	21,26	2/80	12/17/80	OK	YES	

MIDLAND

YES - 31
YES X - 0
NO - 0

CLASS I

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS Pg 27
F12335	34	3/4/80	3/19/80	OK	YES	
F13245	23	2/12/80	3/14/80	OK	YES	
F13246	34,66	2/12/80	3/14/80	66?	NO? /	
F13247	34	2/12/80	3/14/80	OK	YES	
F13248	48	2/12/80	3/14/80	OK	YES	
F13249	5	2/12/80	3/14/80	OK	YES	
F13250	5	2/12/80	4/10/80	OK	YES	
F13251	21	2/12/80	3/13/80	OK	YES	
F13252	34	2/12/80	3/13/80	OK	YES	
F13253	34	2/12/80	4/10/80	OK	YES	
F13254	5,64	2/12/80	3/14/80	64 3/25/80	NO /	
F13255	23	2/12/80	3/14/80	OK	YES	
F13256	23	2/12/80	4/10/80	OK	YES	
F13258	54	2/12/80	3/14/80	OK	YES	
F13257	54	2/12/80	3/14/80	OK	YES	
F13259	21	2/12/80	3/14/80	OK	YES	
F13261	23,54	2/12/80	3/14/80	OK	YES X	
F13260	34	2/12/80	3/14/80	OK	YES	
F11100	58	9/5/79	3/11/80	58?	NO? /	
F13262	54	2/12/80	3/13/80	OK	YES	
F11117	58	9/5/79	3/11/80	58?	NO? /	
F11104	34	9/5/79	3/11/80	OK	YES	
F2798	23,26	1/23/81	3/3/81	OK	YES	
P3453	34,54	1/26/81	3/9/81	OK	YES	
P3452	34,12	1/27/81	3/4/81	OK	YES	
F13571	5,23	11/80	12/17/80	OK	YES	
F13573	5154	11/80	12/17/80	OK	YES	
F13504	54	11/80	12/5/80	OK	YES	"YELLOW OUT" USED
F13503	12	11/80	12/5/80	OK	YES	
F13499	34	11/80	12/2/80	OK	YES	
F13497	34,54	11/80	12/2/80	OK	YES	

MIDLAND

YES - 26
YES X - 1
NO - 4

CLASS I
PLANT 2

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS
F10468	26	12/3/79	2/18/80	OK	YES	
F10354	21	12/19/79	2/18/80	OK	YES	
F10357	12	12/20/79	2/18/80	OK	YES	
F10349	34	12/19/79	2/18/80	OK	YES	
F10353	21	2/18/80	2/18/80	OK	YES	
F10352	12	12/19/79	2/18/80	OK	YES	
F10351	26	12/19/79	2/18/80	OK	YES	
F10355	34	12/19/79	2/18/80	OK	YES	
F10348	34	12/19/79	2/18/80	OK	YES	
F10356	39	12/19/79	2/18/80	OK	YES	
F10473	6,48	12/3/79	1/14/80	OK	YES X	
F11050	26	9/4/79	3/11/80	26 3/25/80	NO /	
F11091	26	9/4/79	3/11/80	26 3/25/80	NO /	
F11118	58	9/4/79	3/11/80	58?	NO? /	
F10007	23	11/15/79	8/15/80	OK	YES	
F10011	6	11/15/79	8/15/80	OK	YES	
F11132	58	9/4/79	3/11/80	58?	NO? /	
F10012	39	11/15/79	8/15/80	OK	YES	
F10052	39	11/15/79	8/15/80	OK	YES	
F10055	6	11/15/79	8/15/80	OK	YES	
F10047	12	11/15/79	8/15/80	OK	YES	
F10054	5,39	11/15/79	8/15/80	OK	YES X	
F10015	30	11/15/79	8/15/80	OK	YES	
F10056	48	11/15/79	8/15/80	OK	YES	
F10060	12	11/19/79	8/15/80	OK	YES	
F10064	39	11/19/79	8/15/80	OK	YES	
F10065	39	11/19/79	8/15/80	OK	YES	
F10069	6	11/19/79	8/15/80	OK	YES	
F10070	48	11/19/79	8/15/80	OK	YES	
F10061	34	11/19/79	8/15/80	OK	YES	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

MIDLAND

YES -25
YES X -2
NO -4

CLASS I

NO.	NO's.	DATE	DATE	DATE	O.K.	COMMENTS Pg 29
F5627	21,12	5/8/79	8/6/79	OK	YES X	
F5626	21	4/17/79	8/6/79	OK	YES	
F5625	34,21	4/18/79	8/6/79	OK	YES X	
F5623	34	4/26/79	8/7/79	OK	YES	
F5624	34,21	4/26/79	8/6/79	OK	YES X	
F5052	12,21	6/24/79	8/6/79	OK	YES X	
F5628	21,34	4/17/79	8/7/79	OK	YES X	
F5629	12	5/8/79	8/6/79	OK	YES	
P2756	21,39,12	6/9/79	7/26/79	39 10/29/79	NO ✓	
F04407	12	3/5/79	6/5/79	OK	YES	
F04410	12	3/5/79	6/5/79	OK	YES	
F7405	12	2/12/79	6/5/79	OK	YES	
F04412	20,39	3/5/79	6/5/79	39 10/29/79	NO ✓	
F04411	20,39	3/5/79	6/5/79	39 10/29/79	NO ✓	
F04409	12	3/5/79	6/5/79	OK	YES	
F04408	20,39	3/5/79	6/5/79	39 10/29/79	NO ✓	
F04406	12	3/5/79	6/5/79	OK	YES	
F4405	12	3/5/79	6/5/79	OK	YES	
F4404	20,39	3/5/79	6/5/79	39 10/29/79	NO ✓	
F4277	21	3/5/79	6/5/79	OK	YES	
F11103	26	9/5/79	3/11/80	OK	YES	
F11102	58	9/5/79	3/11/80	58?	NO? ✓	
F9127	12	11/30/79	3/7/80	OK	YES	
F10470	21	11/27/79	2/18/80	OK	YES	
F10477	12	12/3/79	2/18/80	OK	YES	
F10476	12	12/3/79	2/18/80	OK	YES	
F10475	5	12/3/79	2/18/80	OK	YES	
F10472	23	12/3/79	2/18/80	OK	YES	
F10350	34	12/19/79	2/18/80	OK	YES	
F10478	26	12/3/79	2/18/80	OK	YES	
F10469	39	12/3/79	2/18/80	OK	YES	

MIDLAND

YES — - 20
YES X - 5
NO - 6

CLASS I
PLANT 2

HANGER NO.	WELDER NO's.	FIELD DATE	WELD DATE	QUAL. DATE	HANGER O.K.	COMMENTS Pg 20
F12136	12,21	2/80	2/10/81	OK	YES	
F12144	12,21	2/80	2/10/81	OK	YES	
F12142	12	2/80	2/10/81	OK	YES	
F12140	12	2/80	2/10/81	OK	YES	
F12138	12,21	2/80	2/10/81	OK	YES	
F12130	12,21	2/80	2/10/81	OK	YES	
F13132	12	2/80	2/10/81	OK	YES	
F12138	12,26	2/80	2/10/81	OK	YES	
F12126	21	2/80	2/10/81	OK	YES	
P3325	54,26,12	2/80	10/28/80	OK	YES	
P2971	34,21,26 24	11/80	12/3/80	24?	NO ✓	WHO IS 24?
P2922	12,5,63,21	10/80	10/28/80	OK	YES	
F13694	26,5	12/80	1/5/81	OK	YES	
F13634	21,63	11/80	12/15/80	OK	YES	
F13633	21.63	11/80	12/15/80	OK	YES	
F13616	21,54	11/80	12/15/80	OK	YES	
F13615	12,54	11/80	12/15/80	OK	YES	
F13614	12.63	11/80	12/15/80	OK	YES	
F13613	12,5	11/80	12/15/80	OK	YES	
F13612	12,34	11/80	12/15/80	OK	YES	
F13605	26,54,21	11/80	1/6/81	OK	YES	
F13611	12,21,34	11/80	12/15/80	OK	YES	
F13610	23,5	11/80	1/6/81	OK	YES	
F13609	26,54	11/80	1/6/81	OK	YES	
F13604	23,54	11/80	1/6/81.	OK	YES	
F13481	26,21,	11/80	12/2/80	OK	YES	
F13603	26,12	11/80	1/6/81	OK	YES	
F13577	26,12	11/80	1/6/81	OK	YES X	
F13575	54	11/80	12/17/80	OK	YES	
F13576	5,54	11/80	12/17/80	OK	YES	
F5630	12,34	4/17/79	8/6/79	OK	YES X	

MIDLAND

YES - 28
YES X - 3
NO - 1

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
P3416	26,5	1/16/81	2/11/81	9/19/80	YES	
P3415	26	1/15/81	2/11/81	9/19/80	YES	
F2521	63,5	1/7/81	2/9/81	9/19/80	YES	
P503	12,48	10/79	11/8/79	OK	YES	
P502	12,48	10/79	11/8/79	OK	YES	
P1229	34	8/79	10/11/79	OK	YES	
F5405	34	5/79	11/5/79	OK	YES	
F9252	21	8/79	11/5/79	OK	YES	
F9260	34,6	8/79	11/2/79	6	NO /	6 NOT QUALIFIED TO P9CS
F9380	34	9/79	11/2/79	OK	YES	
F9381	12	9/79	11/1/79	OK	YES	
P1305	21,6	9/79	10/29/79	6	NO /	6 NOT QUALIFIED TO P9CS
P1308	12,48	9/79	10/30/79	48	NO /	48 QUALIFIED TO P9CS 4/3/80
P1350	34,5,21	9/79	10/30/79	OK	YES X	P5CS
F8430	34	8/79	10/24/79	OK	YES	
F11170	21	8/79	10/24/79	OK	YES	
F11171	21,26	8/79	10/24/79	26	NO /	26 QUALIFIED P5CS 10/29/79
F11176	21,6	8/79	10/24/79	6	NO /	6 QUALIFIED P5CS 10/29/79
F11180	12	8/79	10/24/79	OK	YES	
F11179	34,39	8/79	10/24/79	OK	YES X	
F11181	21	8/79	10/24/79	OK	YES	
F11182	34,39	8/79	10/24/79	OK	YES X	
F11192	12	8/79	10/22/79	OK	YES	
F11199	21	8/79	10/22/79	OK	YES	
F11205	34,26	8/79	10/24/79	26	NO /	26 QUALIFIED P5CS 10/29/79
F11208	34	8/79	10/22/79	OK	YES	
F11209	12,39	8/79	10/22/79	39	NO /	39 QUALIFIED P5CS
F2776	54	1/81	2/19/81	OK	YES	
F13716	21,63,5	12/80	1/23/81	OK	YES X	
P3397	63	12/80	2/9/81	OK	YES	
P3396	63	12/80	2/9/81	OK	YES	

MIDLAND

YES - 30
YES X - 4
NO - 7

CLASS I

TICKET NO.	WELDER NO's.	ISSUE DATE	W.A. DATE	QUAL. DATE	TICKET O.K.	COMMENTS
P3829	63	7/10/81	8/12/81	OK WPS-1	YES	
P3828	63	7/10/81	8/11/81	OK WPS-1	YES	
P3791	63	7/1/81	8/11/81	OK WPS-1	YES	
P3790	63	7/1/81	8/11/81	OK WPS-1	YES	
P670	63	6/17/81	8/10/81	OK WPS-1	YES	
P669	9	6/17/81	8/10/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
P668	9	6/17/81	8/10/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
P648	63	6/10/81	8/10/81	OK WPS-1	YES	
P596	63	6/5/81	8/11/81	OK WPS-1	YES	
P593	63	6/10/81	8/10/81	OK WPS-1	YES	
F13747	34	12/10/80	5/29/81	OK WPS-1	YES	
F13739	23	12/10/80	5/28/81	OK WPS-1	YES	
F13738	12	12/10/82	5/29/81	OK WPS-1	YES	
F13737	63	12/10/80	5/28/81	OK WPS-1	YES	
F13736	34	12/10/80	5/28/81	OK WPS-1	YES	
F17066	21	8/26/81	9/22/81	OK WPS-1	YES	
F17073	34	8/26/81	9/14/81	OK WPS-1	YES	
F17074	54	8/26/81	9/25/81	OK WPS-1	YES	
F17075	21	8/26/81	9/24/81	OK WPS-1	YES	
F17076	21	8/26/81	9/24/81	OK WPS-1	YES	
F17123	52,21	8/31/81	9/21/81	OK WPS-1	YES	
F17124	21,52	8/31/81	9/21/81	OK WPS-1	YES	
F17125	52,21	8/1/81	9/21/81	OK WPS-1	YES	
F17402	21,63	8/13/81	9/4/81	OK WPS-1	YES	
F17424	21,63	8/14/81	9/4/81	OK WPS-1	YES	
F17067	34	8/26/81	9/16/81	OK WPS-1	YES	
F17425	63	8/17/81	9/29/81	OK WPS-1	YES	
F17071	63	8/26/81	9/15/81	OK WPS-1	YES	
F17070	9	8/26/81	9/15/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
F17437	9	8/17/81	9/29/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
F17430	63	8/17/81	9/29/81	OK WPS-1	YES	

MIDLAND

YES - 37
YES X - 4
NO - 0

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F17440	54	8/17/81	9/29/81	OK WPS-1	YES	
F17443	54	8/17/81	9/29/81	OK WPS-1	YES	
P548	52,9	8/31/81	9/21/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
P667	63	6/17/81	8/10/81	OK WPS-1	YES	
P3946	21	8/11/81	9/4/81	OK WPS-1	YES	
F17453	9	8/17/81	9/29/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
F17442	9	8/17/81	9/29/81	OK WPS-1	YES X	9 NOT IDENTIFIABLE
F17441	63	8/17/81	9/29/81	OK WPS-1	YES	
F15505	34	6/25/81	8/7/81	OK WPS-1	YES	
F15556	34	7/1/81	8/12/81	OK WPS 1	YES	
F15557	34	7/1/81	8/12/81	OK WPS-1	YES	
P3451	5,34	1/24/81	2/19/81	OK WPS-1	YES	
P3775	21	4/1/81	4/21/81	WPS-1 WPS-2	YES	WELDING PROCEDURE NOT CIRCLED ON TRAVELER
P2834	6	8/27/79	12/7/79	OK P5CS	YES	
F2143	34	4/17/81	5/29/81	OK WPS-1	YES	
F17115	9	9/1/81	10/8/81	WPS-1 WPS-2	YES ?	2 - #9's, UNABLE TO DISTINQUISH WHICH ONE
P3448	34,21	1/24/81	2/19/81	OK WPS-1	YES	
P3447	54	1/24/81	2/19/81	OK WPS-1	YES	
F17116	63	9/1/81	10/12/81	OK WPS-1	YES	
F13732	12	12/10/80	5/27/81	OK WPS-1	YES	
F13731	5	12/10/80	5/27/81	OK WPS-1	YES	
F13730	12	12/10/80	5/26/81	OK WPS-1	YES	
F2221	21,12	4/1/81	5/6/81	OK WPS-1	YES	
F2053	23,21	3/26/81	5/7/81	OK WPS-1	YES	
F1937	23	3/13/81	5/7/81	OK WPS-1	YES	
P3774	23	3/27/81	5/7/81	OK WPS-1	YES	
P1181	12,20	9/22/79	1/9/81	OK WPS-1	YES X	OUT ON COPY GP
P1668	34	12/21/79	12/24/80	OK WPS-1	YES	
P1186	34	9/14/79	12/23/80	OK WPS-1	YES	
1664	34	12/20/79	12/24/80	OK WPS-1	YES	
1653	34	12/18/79	12/23/80	OK WPS-1	YES	

MIDLAND

YES - 37
YES X - 4
NO - 0

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F8726	12,63,34	9/13/79	12/17/80	9/19/80 8/27/80	YES X	VANE WELDER 34 NOT TRANSFERRED
F8570	34	8/30/79	2/9/81	4/22/76	YES	
F8572	20,6	8/30/79	2/9/81	12/10/76 10/29/79	YES X	WELDER 6 ON COPY
F02636	26,12	1/16/81	2/11/81	9/19/80 3/31/81	NO ✓	WPS NOT CIRCLED, WELDER 12 NOT QUALIFIED FOR WPS-2, 26 QUALIFIY AFTER WORK DATE WPS-2
F02635	26,12	1/16/81	2/11/81	9/19/80 3/31/81	NO ✓	WPS NOT CIRCLED, WELDER 12 NOT QUALIFIED FOR WPS-2, 26 QUALIFY. AFTER WORK DATE WPS-2
F02633	23,12	1/16/81	2/11/81	9/19/80	YES	
F02632	23,12	1/16/81	2/11/81	9/19/80	NO ✓	WPS NOT CIRCLED, ID DATE DOES NOT MATCH WELDER 23, 12 NOT QUALIFIED FOR WPS-2
F02630	26,54	1/16/81	2/11/81	9/19/80 3/31/81	NO ✓	WPS NOT CIRCLED, WELDER 54 NOT QUALIFIED FOR WPS-2 WELDER 26 QUALIFIED AFTER WORK DATE WPS-2
F02628	26,12	1/15/81	2/11/81	9/19/80	YES ?	WELDER 26 ON COPY (VANES) ?
F02626	26,34	1/15/81	2/11/81	9/19/80 8/27/80	YES	
F02624	23,54	1/15/81	2/11/81	9/19/80	YES	
F2663	26	1/17/81	2/11/81	9/19/80	YES	
F2662	26	1/16/81	2/11/81	9/19/80	YES	
F2657	23	1/17/81	2/11/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 23 NOT QUALIFIED FOR WPS-2
F2656	23	1/17/81	2/11/81	9/19/80	NO ✓	WELDER 26 ON COPY (VANE) ? WELDER NOT QUALIFIED FOR WPS-2
P3023	21,54	12/9/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 21 & 54 NOT QUALIFIED FOR WPS-2
F13765	2 ,34	12/10/80	1/23/81	9/19/80 8/27/80	YES	
F13764	21,34	12/10/80	1/23/81	9/19/80 8/27/80	NO	WPS NOT CIRCLED, WELDER 21 NOT QUALIFIED FOR WPS-2
F13746	21,23	12/10/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 21 & 23 NOT QUALIFIED FOR WPS-2
F13719	21,63	12/9/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 21 & 63 NOT QUALIFIED FOR WPS-2
F13718	21	12/9/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER NOT QUALIFIED FOR WPS-2
F13717	21,5	12/9/80	1/23/81	9/19/80	NO ✓	WPS NOT CIRCLED, WELDER 21 & 5 NOT QUALIFIED FOR WPS-2
P3432	23,5	1/17/81	2/11/81	9/19/80	YES	
P3432	23,5	1/17/81	2/11/81	9/19/80	YES	
P3418	26,5	1/16/81	2/11/81	9/19/80	YES	
P3420	26,54	1/17/81	2/11/81	9/19/80	YES	
P3417	26,5	1/16/81	2/11/81	9/19/80	YES	

MIDLAND

YES - 13
YES X - 2
NO - 12

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
P1652	34	12/18/79	12/23/80	OK WPS-1	YES	
P1651	34	12/18/79	12/22/80	OK WPS-1	YES	
P1297	20,21	9/13/79	1/12/81	OK WPS-1	YES	
P1224	34,20	8/30/79	1/5/81	OK WPS-1	YES ?	OUT ON COPY RM
P1180	21,20	9/22/79	1/9/81	OK WPS-1	YES	
P1202	5	9/4/79	2/9/81	OK WPS-1	YES	OUT ON COPY WJ
P1188	12,21, 34,63	9/14/79	12/17/80	OK WPS-1	YES	
F2359	34	12/30/80	2/10/81	8/27/80	YES	
P3402	63	12/30/80	2/10/81	9/19/80	YES	
P3406	34	12/30/80	2/10/81	8/27/80	NO	NO WELDER ID FOR FITTING
P3405	34	12/30/80	2/10/81	8/27/80	YES	
P3404	34,5	12/30/80	2/10/81	8/27/80 9/19/80	YES	
P3403	3454	12/30/80	2/10/81	8/27/80 9/19/80	YES	
F2326	21,63	12/30/80	1/23/81	9/19/80	YES	
F2320	21,34	12/2/80	1/23/81	9/19/80 8/27/80	NO	WPS NOT CIRCLED, WELDER 21 NOT QUALIFIED FOR WPS-2
F2301	34	12/3/80	2/9/81	8/27/80	NO	WPS NOT CIRCLED
F13720	21,63	12/9/80	1/23/81	9/19/80	NO	WPS NOT CIRCLED, WELDER 21,53 NOT QUALIFIED FOR WPS-2
F2683	34	1/28/81	2/27/81	8/27/80	YES	
F2682	63	1/27/81	2/27/81	8/19/80	YES	
F2681	34	1/28/81	2/27/81	8/27/80	YES	
F1980	20	3/5/81	5/19/81	9/19/80	YES	
F2680	63	1/27/81	2/27/81	9/19/80	YES	
F8934	12	9/22/79	2/9/81	2/3/80	YES	
F8933	5,20	9/22/79	1/9/81	9/19/80 10/29/79	YES	
F8932	21	9/22/79	2/9/81	2/3/80	YES	
F8931	54,20	9/22/79	1/9/81	12/10/76 1/22/80	YES	
F8930	12	9/22/79	2/9/81	2/3/80	YES	
F8929	34	9/22/79	2/9/81	4/22/76	YES	
F8911	34,21	9/22/79	12/24/80	OK	YES	
F8909	21	9/22/79	2/9/81	2/3/80	YES	
F8800	20	9/20/79	2/9/81	12/10/76	YES	

MIDLAND

YES - 27
YES X - 0
NO - 4

CLASS I

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F6478	34	7/16/79	2/9/81	4/22/76	YES X	DI (?) CLEANER ?
F6476	34	7/16/79	2/9/81	4/22/76	YES X	DI (?) CLEANER ?
F6477	34	7/16/79	2/9/81	4/22/76	YES X	DI (?) CLEANER ?
F6473	21	7/16/79	2/9/81	2/3/80	YES	
F6474	21	7/16/79	2/9/81	2/3/80	YES	
F6471	20,52 (?)	7/16/79	2/9/81	12/10/76 3/15/80	YES X	GP ON COPY
F6469	20	7/16/79	2/9/81	12/10/76	YES	
F14851	12	6/16/81	8/7/81	9/19/80	NO /	WELDER 12 NOT QUALIFIED FOR WPS-2
F14821	34	6/11/81	8/7/81	8/27/80	YES	
F14820	34	6/11/81	8/10/81	8/27/80	YES	
F14819	34	6/11/81	8/10/81	8/27/80	NO /	RM (?) ON COPY
F14817	34	6/10/81	8/11/81	8/27/80	YES	
F14588	34	6/5/81	8/10/81	8/27/80	YES	
F14587	34	6/5/81	8/10/81	8/27/80	YES	
F14586	63	6/5/81	8/12/81	9/19/80	NO /	WELDER NOT QUALIFIED FOR WPS-2
F14582	34	6/11/81	8/12/81	8/27/80	YES	
F14182	63,6	5/8/1	8/12/81	12/31/80 9/19/80 5/14/81	YES	
F13735	5	12/10/81	5/28/81	OK WPS-1	YES	
F13734	63	12/10/80	5/27/81	OK WPS-1	YES	
F13733	23	12/10/80	5/28/81	OK WPS-1	YES	
F15555	34	7/2/81	8/12/81	OK WPS-1	YES	
F15554	34	7/2/81	8/12/81	OK WPS-1	YES	
F15504	34	6/25/81	8/12/81	OK WPS-1	YES	
F15503	34	6/25/81	8/10/81	OK WPS-1	YES	
F15502	34	6/25/81	8/7/81	OK WPS-1	YES	
F14864	34	6/17/81	8/11/81	OK WPS-1	YES	
F14866	34	6/17/81	8/11/81	OK WPS-1	YES	
F14865	34	6/17/81	8/7/81	OK WPS-1	YES	
F14863	63	6/17/81	8/13/81	OK WPS-1	YES	
F14862	63	6/17/81	7/30/80	OK WPS-1	YES	
F14[illegible]	63	5/8/81	8/12/81	OK WPS-1	YES	

MIDLAND

YES - 24
YES X - 4
NO - 3

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
P3010	54,23	1/28/81		OK	YES	
F2794	34,5	1/26/81		OK	YES	
F2779	54,26	1/24/81		OK	YES	
F2782	54,12,34	1/24/81		OK	YES	
F2778	54,23	1/24/81		OK	YES	
F2777	54,26	1/23/81		OK	YES	
F2786	12,34	1/24/81		OK	YES X	
F2785	34,12,5	1/24/81		OK	YES X	
F2783	54,21,34	1/24/81		OK	YES	
F2781	54,21,34	1/24/81		OK	YES X	
F2780	54,21,23	1/24/81		OK	YES X	
F2774	34,12	1/23/81		OK	YES	
F2768	63,26	1/23/81			NO /	26 & 63 NOT QUALIFIED FOR WPS-2
F2756	5,54	1/23/81		OK	YES	
F2748	5,63,12	1/23/81		OK	YES X	
F2599	5,63	1/23/81		OK	YES	
F2767	26,12	1/23/81		OK	YES	
F2809	54,5	1/28/81		OK	YES	
F2327	63,26	1/28/81		OK	YES	
P3075	63,26	12/17/80			NO /	63 & 26 NOT QUALIFIED FOR WPS-2
F02643	23,26,12	1/17/81			NO /	12, 23 & 26 NOT QUALIFIED FOR WPS-2
F02638	26,21	1/16/81		OK	YES	
F02642	23,26	1/17/81			NO /	26 & 23 NOT QUALIFIED FOR WPS-2
F02641	23,5	1/17/81			NO /	23 & 5 NOT QUALIFIED FOR WPS-2
F8571	12,23	8/30/79	2/9/81	2/3/80 10/29/79	YES X	WELDER 23 ON COPY
F8569	21,20,6	8/30/79	1/12/81	10/29/79 2/3/80 12/10/76	NO /	LP NOT LISTED
F8568	20,23	8/30/79	1/12/81	12/10/76 10/29/79	YES X	WELDER 23 ON COPY
F8567	21	8/30/79	2/9/81	2/3/80	YES X	
F6481	34	7/16/79	2/9/81	4/22/76	YES ?	DI (?) CLEANER ?
F6480	34	7/16/79	2/9/81	4/22/76	YES ?	DI (?) CLEANER ?
F6479	39,20	7/16/79	2/9/81	10/29/79 12/10/76	YES ?	BS ON COPY

MIDLAND

YES - 17
YES X - 8
NO - 6

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F10922	21,54	1/23/80	9/18/81	OK WPS-1	YES	
F12332	21,54	2/18/80	9/18/81	OK WPS-1	YES	
F15879	21,34	8/11/81	9/4/81	OK WPS-1	YES	
F17122	52,63	8/31/81	9/21/81	OK WPS-1	YES	
F15891	21	8/11/81	9/4/81	OK WPS-1	YES	
F02639	26	1/17/81		D	NO	26 NOT QUALIFIED FOR WPS-2
F02637	26,12	1/16/81		D	NO	26 & 12 NOT QUALIFIED FOR NPS-2
F2043	34	3/27/81		OK	YES	
F1977	20	3/5/81		OK	YES	
F2042	34	3/27/81		OK	YES	
P661	52,21	6/16/81			NO	52 & 21 NOT QUALIFIED FOR WPS-2
P660	52,54	6/16/81			NO	52 & 54 NOT QUALIFIED FOR WPS-2
P659	52,23	6/16/81			NO	52 & 23 NOT QUALIFIED FOR WPS-2
P658	52,23	6/16/81			NO	52 & 23 NOT QUALIFIED FOR WPS-2
P657	52,23	6/16/81			NO	52 & 23 NOT QUALIFIED FOR WPS-2
P3619	63	3/30/81			NO	63 NOT QUALIFIED FOR WPS-2
P3602	63,34	3/27/81			NO	63 NOT QULALIFED FOR WPS-2
F2052	12,23	3/27/81		OK	YES	
F2032	12,23	3/30/81			NO	12 & 23 NOT QUALIFIED FOR WPS-2
F2031	5,23,12	3/30/81			NO	5, 23 & 12 NOT QUALIFIED FOR WPS-2
F2223	12,23,21	4/1/81			NO	12, 23 & 21 NOT QUALIFED FOR WPS-2
F2023	12,63	3/31/81			NO	12 & 63 NOT QUALIFIED FOR WPS-2
F1877	63,12	3/20/81		OK	YES	
F1925	34	3/17/81		OK	YES	
F2009	12	3/31/81			NO	12 NOT QUALIFIED FOR WPS-2
F2014	34,63	3/31/81			NO	63 NOT QUALIFIED FOR WPS-2
F2022	12,34	3/31/81			NO	12 NOT QUALIFIED FOR WPS-2
F13759	23	12/11/80			YES	
P3446	26	1/24/81		OK	YES	
P3431	21,54	1/17/81		OK	YES	
-----	-- --	- --- ---		---	--	

MIDLAND

YES - 15
YES X - 0
NO - 16

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F9217	34	11/6/79	12/31/80	OK WPS-1	YES	
F9015	20	10/2/79	2/9/81	OK P5CS	YES X	OUT BS
F8943	21	9/23/79	2/9/81	OK P5CS	YES X	OUT ID
F8942	21	9/22/79	2/9/81	OK P5CS	YES X	OUT ID
F8939	20	10/22/79	1/12/81	OK WPS-1	YES X	OUT TW
F8941	12	9/22/79	2/9/81	OK P5CS	YES	
F8940	34	9/22/79	2/9/81	OK P5CS	YES	
F8938	5	9/22/79	2/9/81	OK P5CS	YES	
F8937	21	9/22/79	2/9/81	OK P5CS	YES	
F8936	21	9/22/79	2/9/81	OK P5CS	YES	
F8935	5	9/22/79	2/9/81	OK P5CS	YES	
F2312	26,5	10/20/80	1/6/81	OK WPS-1	YES	
P1665	23	12/20/79	10/31/80	OK WPS-1	YES	
P1663	23	12/20/79	10/31/80	OK WPS-1	YES	
F1538	34	8/27/79	2/9/81	OK P5CS	YES X	OUT GP (26)
P3726	21,9	8/14/81	9/4/81	OK WPS-1	YES	9 NOT IDENTIFIABLE
F11286	12	8/29/79	10/22/79	OK P5CS	YES	
F11207	21	8/29/79	10/25/79	OK P5CS	YES	
F5832	34	3/27/79	9/20/79	OK P5CS	YES	
F6467	21	7/14/79	9/21/79	OK P5CS	YES X	EJ NOT CIRCLED (COPY)
F4460	12	3/13/79	5/23/79	OK P5CS	YES	
						DR NOT CIRCLED (COPY)
F17428	21,9	8/17/81	9/4/81	OK WPS-1	YES X?	9 NOT IDENTIFIABLE
F17429	21,63	8/14/81	9/4/81	OK WPS-1	YES	
F17431	21	8/17/81	9/4/81	OK WPS-1	YES	
F17430	21,34	8/14/81	9/4/81	OK WPS-1	YES	
F17427	21	8/14/81	9/4/81	OK WPS-1	YES	
F17426	21	8/14/81	9/4/81	OK WPS-1	YES	
F17425	21	8/14/81	9/4/81	OK WPS-1	YES	
F10732	21,9	1/21/80	9/18/81	OK WPS-1	YES X?	9 NOT IDENTIFIABLE
F10849	21,54	1/21/80	9/18/81	OK WPS-1	YES	

MIDLAND

YES -22
YES X - 8
NO -0

CLASS I
PLANT 2

TICKET NO.	WELDER NO's.	ISSUE DATE	WORK DATE	QUAL. DATE	TICKET O.K.	COMMENTS
F13740	12	12/10/80		O.K.	YES	
F13751	23	1/8/81		O.K.	YES	
F13758	DG,12	1/8/81		DG	NO /	CAN'T DETERMINE DG
F13757	5	1/8/81		O.K.	YES	
F13756	JL,23	1/8/81		JL	NO /	CAN'T DETERMINE JL
F13755	34	12/11/80		O.K.	YES	
F13754	34	12/11/80		O.K.	YES	
F13753	63	12/11/80		O.K.	YES	
F13752	12	12/11/80		O.K.	YES	
F13750	5	12/11/80		O.K.	YES	
F13748	DG,5	12/10/80		DG	NO /	CAN'T DETERMINE DG
F13749	63	1/8/81		O.K.	YES	
P1306	34,54	10/1/79	1/14/80	54-1/22/80	NO /	
P1187	23,12,21	9/14/79	12/18/80	OK WPS-1	YES	
P1182	12,20	9/22/79	1/8/81	OK WPS-1	YES X?	HM ON COPY, NOT CIRCLED
P1179	21	9/22/79	2/9/81	OK WPS-1	YES	
P1178	20,21	9/22/79	1/12/81	OK WPS-1	YES X	GP ON COPY, NOT CIRCLED
						BS,MDS,RM,DW - NOT CIRCLED
P1177	34,20	9/22/79	1/12/81	OK WPS-1	YES X	OUT ON COPY - GP,RM
P1106	21,20	7/16/79	1/12/81	OK WPS-1	YES X	OUT ON COPY - WJ
P1105	21,20	7/16/79	1/12/81	OK WPS-1	YES X	OUT ON COPY - WJ
P1104	20,21	7/16/79	1/12/81	OK WPS-1	YES X?	OUT ON COPY - WJ NO DL ON FILE (COPY)
P1103	34,20	7/16/79	1/12/81	OK WPS-1	YES X?	OUT BS ON COPY DL - NO PERSON ON FILE
P507	5	10/10/79	2/9/81	OK WPS-1	YES	
F13540	26,21	11/25/80	1/6/81	OK WPS-1	YES	
F13539	23,63	11/25/80	1/6/81	OK WPS-1	YES	
F10643	23	12/20/79	10/30/80	OK WPS-1	YES	
F10641	23	12/20/79	10/30/80	OK WPS-1	YES	
F10638	23	12/20/79	10/30/80	OK WPS-1	YES	
F10637	23	12/20/79	10/29/80	OK WPS-1	YES	
F9567	34	9/13/79	2/9/81	OK WPS-1	YES	

MIDLAND

YES - A
YES X - 7
NO - 4

CLASS I
PLANT 2

[illegible] NO.	[illegible] NO's.	[illegible] DATE	[illegible] DATE	[illegible] DATE	[illegible] O.K.	COMMENTS Pg 41
F8727	12,21	9/13/79	12/17/80	OK WPS 1	YES X	34 ADDED TO COPY 12/17/80
P3609	12,21,23	3/30/81	4/30/81	OK WPS 1	YES	
P3610	34,63,23	3/30/81	4/3/81	OK WPS 1	YES	
F2807	63,34,21	1/28/81	2/19/81	OK WPS 1	YES	
F13608	21,26	11/22/80	1/22/81	OK WPS 1	YES	
P500	34	10/10/79	11/7/79	OK P5	YES	
P2833	6	8/27/79	12/7/79	NO P5	NO /	RK NOT CIRCLED ON COPY
F10423	6,JDT	12/8/79	1/10/80	NO P5	NO /	RK NOT CIRCLED ON COPY
F10424	6 JDT	12/8/79	1/10/80	NO P5	NO /	RK NOT CIRCLED ON COPY
F10425	6,JDT	12/8/79	1/10/80	NO P5	NO	RK NOT CIRCLED ON COPY JDT NOT QUALIFIED
F10426	6,JDT	12/8/79	1/10/80	NO P5	NO /	RK NOT CIRCLED ON COPY JDT NOT QUALIFIED
F10492	6,JDT	11/29/82	1/10/80	NO P5	NO /	OUT TW ON COPY TW NOT QUALIFIED
F10010	48	11/3/79	1/10/80	OK P5	YES	
F10072	6	11/5/79	1/15/80	NO P5	NO /	RK NOT CIRCLED ON COPY
F10062	6	11/5/79	1/14/80	NO P5	NO /	RK NOT CIRCLED ON COPY
F13617	21	11/22/80	1/22/81	OK WPS 1	YES	
F13607	21,63	11/22/80	1/22/81	OK WPS 1	YES	
F13574	21,23	11/21/80	1/22/81	OK WPS 1	YES	
P495	21	8/29/79	10/10/79	NO P5	NO /	RK & DW LISTED ON COPY NOT QUALIFIED
F5817	34	4/14/79	8/27/79	NO P5	NO /	OUT BS ON COPY BS NOT QUALIFIED
F6485	34	7/17/79	9/17/79	NO P5	NO /	OUT BS ON COPY BS NOT QUALIFIED
P1114	21	7/12/79	10/1/79	NO P5	NO /	OUT DW NOT QUALIFIED
P1115	34	7/12/79	10/3/79	NO P5	NO /	OUT WJ ON COPY - NOT QUALIFIED
P1107	21	7/16/79	9/17/79	OK P5	YES	
F9259	21	8/31/79	11/5/79	NO P9	NO /	DW ON COPY - NO QUALIFIED
F8952	21	9/22/79	10/31/79	NO P9	NO /	RK ON COPY
F8951	21	9/22/79	10/31/79	NO P9	NO /	RK ON COPY
F2704	34,63,21	1/17/81	2/18/81	OK WPS 1	YES	

MIDLAND

YES - 11
YES X - 1
NO - 16

CLASS I

ATTACHMENT #2

INITIAL CATEGORIZATION OF

MIDLAND CLASS 1 CATEGORY 3 ("NO") TRAVELERS

Sept. 28, 1982

CATEGORIES

A. DATE DISCREPANCIES BETWEEN ISSUE DATE, WORK DATE, INSPECTION DATE.

B. NO WELD PROCEDURE ON TICKET.

C. TWO (2) WELD PROCESSES LISTED - WELDER QUALIFIED TO ONE (1) ONLY OR NEITHER.

D. WELDER NEVER QUALIFIED, AND/OR UNIDENTIFIABLE INITIALS ON COPY. (ARE INITIALS WELDER, INSPECTOR OR CLEANER?)

E. WELDER NOT QUALIFIED, BUT QUALIFIED AT LATER DATE.

1. AT TRAVELER ISSUE DATE (NO WORK DATE AVAILABLE)
2. AT WORK DATE

F. MISCELLANEOUS OTHER.

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: 1 PLANT: II

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-6656	1	D	-TRAVELER VOIDED-
F-6654	1	D	
F-6652	1	D	-TRAVELER VOIDED-
F-6648	1	D	-TRAVELER VOIDED-
F-6644	1	D	-TRAVELER VOIDED-
F-6643	1	D	-TRAVELER VOIDED-
F-6642	1	D	-TRAVELER VOIDED-
F-4425	2	D	Unidentifiable intials on copy
F-4399	2	D	" " "
F-4398	2	D	" " "
F-4397	2	D	" " "
F-4271	2	D	" " "
F-4269	2	D	" " "
F-4284	2	D	" " "
F-4279	2	D	" " "
F-2462	2	D	" " "
F-4276	3	D	" " "
F-4275	3	D	" " "
P-2464	3	D	" " "
F-4424	3	D	" " "
F-804	4	F	No Dates/Qualification status undetermined
F-11202	6	E (2)	Welder #26 & #39
F-11206	6	E (2)	Welder #39
F-11210	6	E (2)	Welder #39
F-11211	6	E (2)	Welder #26 -TRAVELER VOIDED-
F-11200	6	E (2),D	Welder #39/D.I. -TRAVELER VOIDED-
F-6449	6	D	D.L.
F-6444	6	E (2)	Welder #39
F-6443	6	E (2)	Welder #39
P-1110	6	E (2)	Welder #48 -TRAVELER VOIDED-

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: A PLANT: AA

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-9379	6	D	Welder #6
F-9378	6	D	Welder #6
F-8742	8	D	Welder #63 -TRAVELER VOIDED-
F-11198	9	D	S.L.
F-11186	9	E (2)	Welder #48
F-11187	9	D	S.L.
F-11189	9	D	D.L. -TRAVELER VOIDED-
F-11195	9	E (2)	Welder #48 -TRAVELER VOIDED-
F-11196	9	E (2)	Welder #48
F-9256	9	E (2)	Welder #26
F-9251	9	E (2)	Welder #26
P-2570	10	D	D.L. -TRAVELER VOIDED-
P-1150	10	E (2)	Welder #6 -TRAVELER VOIDED-
P-1149	10	E (2)	Welder #39
F-6482	10	E (2)	Welder #26 -TRAVELER VOIDED-
F-6465	10	E (2)	Welder #6 -TRAVELER VOIDED-
F-6464	10	E (2)	Welder #43 -TRAVELER VOIDED-
F-6443	10	E (2)	Welder #26
F-5847	10	E (2)	Welder #6
F-5846	10	E (2)	Welder #6
F-5842	10	E (2)	Welder #6 -TRAVLER VOIDED-
P-493	10	E (2)	Welder #5
P-494	10	E (2)	Welder #39 & #6 -TRAVELER VOIDED-
F-11173	10	E (2)	Welder #5 -TRAVELER VOIDED-
F-11177	10	E (2)	Welder #5
F-11178	10	C	Welder #26
F-5636	11	E (2)	Welder #26
F-5632	11	E (2)	Welder #5
F-5054	11	E (2)	Welder #5
F-5053	11	D	D.L.

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: 1 PLANT: 1

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-5829	12	E (2)	Welder #26
F-5827	12	E (2)	Welder #39
F-5826	12	E (2)	Welder #26 -TRAVELER VOIDED-
F-4448	12	E (2)	Welder #43
F-4444	12	E (2)	Welder #6 -TRAVELER VOIDED-
F-4443	12	D	M.K.
P-2596	12	E (2)	Welder #5 -TRAVELER VOIDED-
F-5814	12	D	D.R.
F-6813	12	D	D.R.
F-5815	12	E (2)	Welder #26
F-5816	12	E (2)	Welder #26
F-5818	12	E (2)	Welder #39
F-5812	12	E (2)	Welder #26
F-5811	12	E (2)	Welder #26
F-5808	12	E (2)	Welder #5
F-11105	14	F	Welder #56 not identified -TRAVELER VOIDED-
F-11036	14	F	Welder #58 not identified -TRAVELER VOIDED-
P-2756	29	E (2)	Welder #39
F-04412	29	E (2)	Welder #39 -TRAVELER VOIDED-
F-04411	29	E (2)	Welder #39 -TRAVELER VOIDED-
F-04408	29	E (2)	Welder #39
F-4404	29	E (2)	Welder #39
F-11102	29	F	Welder #58 not identified
P-2971	30	F	Welder #24 not identified
F-9260	31	D	Welder #6
F-1305	31	D	Welder #6
P-1308	31	E (2)	Welder #48
F-11171	31	E (2)	Welder #26 -TRAVELER VOIDED-
F-11176	31	E (2)	Welder #6
F-11205	31	E (2)	Welder #26

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: 1 PLANT: II

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-1872	17	D	-TRAVELER VOIDED-
F-8801	19	E-2	#52-Welder -TRAVELER VOIDED-
P-1112	19	C	-TRAVELER VOIDED-
F-10268	20	E	#30
P-1201	20	E	#54
F-6456	20	E	#54
F-8767	20	E	#52 -TRAVELER VOIDED-
F-8798	20	E	#52
F-8816	20	E	#54 -TRAVELER VCIDED-
F-10484	21	E	#54
F-10489	21	E	#52
F-10050	23	E	#30 -TRAVELER VOIDED-
F-10485	23	E	#54
F-10066	24	E	#30 -TRAVELER VOIDED-
P-1514	24	E	#30 -TRAVELER VOIDED-
P-1523	24	D	D.L. ? -TRAVELER VOIDED
P-1511	24	E	#54 -TRAVELER VOIDED-
P-1510	24	D	W.I. & G.S. ? -TRAVELER VOIDED-
P-10262	24	E	#54 -TRAVELER VOIDED-
F-13246	27	D	#66 ? -TRAVELER VOIDED-
F-13254	27	E	#64 -TRAVELER VOIDED-
F-11100	27	D	#58 ?
F-11117	27	D	#58 ?
F-11050	28	E	#26 -TRAVELER VOIDED-
F-11091	28	E	#26 -TRAVELER VOIDED-
F-11118	28	D	#58 ? -TRAVELER VOIDED-
F-11132	28	D	#58 ? -TRAVELER VOIDED-
P-1491	16	E	#54
F-02636	34	C	#12 not qualified for WPS-2
F-02635	34	C	#12 not qualified for WPS-2

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: 1 PLANT: II

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-13717	34	D	#21 & #5 not qualified for WPS-2
F-2320	35	D	#21 not qualified for WPS-2 -TRAVELER VOIDED-
F-2301	35	B	WPS not circled -TRAVELER VOIDED-
F-13720	35	D	#21 & #53 not qualified for WPS-2
P-661	38	A,D	#52 & #21 not qualified for WPS-2
P-660	38	A,D	#52 & #54 not qualified for WPS-2
P-659	38	A,D	#52 & #53 not qualified for WPS-2
P-658	38	A,D	#52 & #53 not qualified for WPS-2
P-657	38	A,D	#52 & #53 not qualified for WPS-2
P-3619	38	A,D	#63 not qualified for WPS-2
P-3602	38	A,D	#63 not qualified for WPS-2 -TRAVELER VOIDED-
F-2032	38	A,D	#12 & #23 not qualified for WPS-2 -TRAVELER VOIDED-
F-2031	38	A,D	#5, #12, & #23 not qualified for WPS-2 -TRAVELER VOIDED-
F-2223	38	A,D	#12, #23 & #21 not qualified for WPS-2
F-2023	38	A,D	#12 not qualified for WPS-2
F-2009	38	A,D	#12 not qualified for WPS-2
F-2014	38	A,D	#63 not qualified for WPS-2 -TRAVELER VOIDED-
F-2022	38	A,D	#12 not qualified for WPS-2
F-13758	40	D	D.G. ? -TRAVELER VOIDED-
F-13756	40	D	J.L. ? -TRAVELER VOIDED-
F-13748	40	D	D.G. ?
P-1306	40	E	#54
P-495	41	D	R.K. & D.W. ? -TRAVELER VOIDED-
F-5817	41	D	B.S. ?
F-6485	41	D	B.S. ?
P-1114	41	D	D.W. ?
P-1115	41	D	W.J. ?
P-2833	41	D	R.K. ? -TRAVELER VOIDED-
F-10423	41	D	R.K. ?
F-10424	41	D	R.K. ?

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-4943	11	E (2)	Welder #5
F-4941	11	E (2)	Welder #39
P-2597	11	E (2)	Welder #5 & #39
P-2595	11	D,E (2)	Welder #5/D.R.
P-2594	11	E (2)	Welder #5
P-1093	11	E (2)	Welder #43
F-6448	11	E (2)	Welder #26
F-6454	11	E (2)	Welder #48
F-6486	11	D	D.L.
F-5834	11	E (2	Welder #5 -TRAVELER VOIDED-
F-4446	11	E (2)	Welder #39
F-4445	11	E (2)	Welder #6 -TRAVELER VOIDED-
F-6466	11	E (2)	Welder #5
F-5835	11	E (2)	Welder #26
F-5837	12	E (2)	Welder #39
F-5836	12	E (2)	Welder #6 -TRAVELER VOIDED-
F-5830	12	E (2)	Welder #5 -TRAVELER VOIDED-
F-10426	41	D	R.K. ?
F-10492	41	D	R.K. ?
F-10072	41	D	R.K. ? -TRAVELER VOIDED-
F-10062	41	D	R.K. ? -TRAVELER VOIDED-
F-9259	41	D	D.W. ?
F-8952	41	D	R.K. ? -TRAVELER VOIDED-
F-8951	41	D	R.K. ?
F-02632	34	C	#12 not qualified for WPS-2
F-02630	34	C,D	#26 qualified after work date for WPS-2 #54 not qualified for WPS-2
F-2657	34	D	#23 not qualified for WPS-2
F-2656	34	D	#23 not qualified for PWS-2
F-3023	34	D	#21 & #54 not qualified for WPS-2

DISCREPANT TRAVELER BREAKDOWN FOR PROJECT: Midland CLASS: PLANT:

TRAVELER NO.	PAGE	CATEGORY	COMMENTS
F-13746	34	D	#21 & #23 not qualified for WPS-2
F-13719	34	D	#21 & #63 not qualified for WPS-2
F-13718	34	D	#21 not qualified for WPS-2
F-14851	36	D,C	#12
F-14819	36	D	R.M.
F-14586	36	D	Welder #63 & #26
F-2768	37	D	Welder #26 & #63 -TRAVELER VOIDED-
P-3075	37	D	Welder #63 & #26
F-02643	37	D	Welder #12, #23 & #26
F-02642	37	D	Welder #23 & #5
F-02641	37	D	Welder #23 & #5
F-8569	37	D	[illegible].P.
F-7256	2	E (2)	39 Qualified 10/29/79
F-6453	6	E (2)	
F-6452	6	E (2)	
F-02639	38	D	26 not qualified for WPS-2
F-02637	38	D	26 & 12 not qualified for WPS-2
F-3406	35	D	No welder I.D. for fitting
F-10425	41	D	RK not circled on copy JDT not qualified

ATTACHMENT #3

FINAL LISTING AND BREAKDOWN OF

MIDLAND CLASS 1 CATEGORY 3 ("NO") TRAVELERS

Sept. 28, 1982

FINAL SUMMARY OF TRAVELERS WITH WELD RECORD DISCREPANCIES

Following is a listing of all Travelers that exhibit discrepancies in the information pertinent to welding.

The list was distilled from the original listing of all record copy Travelers that had a corresponding "working" (zerox) copy.

Definitions used in describing the discrepancies listed are as follows:

No Qualification Records on file"

Indicates that the records of welder qualification are not on file within the Zack Company and could not be found in the files of the test lab used for welder qualification testing. This leaves no proof that the individual in question was qualified to weld during the time frame in question.

Qualified:

Indicates the earliest date that a welder passed a welder qualification test for the particular welding process call-out on the Traveler. Records for all welders listed as qualified are on file within the Zack Company.

Work Date:

Indicates the date that welding was performed by evidence of a date entered by the welder next to his I.D. number on the Traveler.

Work Inspected:

Indicates the date that the work was inspected by evidence of a date entered next to the Inspector's initials. This date is usually within two days of actual welding and is the next most representative date for establishing a time frame for work performance.

Material Shipped:

Indicates the date that material listed on a particular Traveler was shipped to a jobsite. This date is usually within two (2) weeks of completion of work. This date is used to establish a time frame for the work when no work date or inspection date is on the Traveler. This date is more indicative of the actual work date than the Traveler issue date.

WELD RECORD DISCREPANCIES FOR PROJECT: MIDLAND Page 1 CLASS I

TRAVELER NO.	PAGE	WELDER I.D.	COMMENTS
F-6654	1	Gibson	No qualification records on file. Work inspected 9-11-78.
F-4425	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4398	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4398	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4397	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4271	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4269	2	#39	Qualified 10-29-79, work inspected 6-6-79.
F-4284	2	#39	Qualified 10-29-79, work inspected 5-21-79.
F-4279	2	#39	Qualified 10-29-79, work inspected 5-21-79.
F-2462	2	#39	Qualified 10-29-79, work inspected 5-18-79.
F-4276	3	#39	Qualified 10-29-79, work inspected 6-5-79.
F-4275	3	#39	Qualified 10-29-79, work inspected 6-5-79.
P-2464	3	#39	Qaulified 10-29-79, work inspected 6-5-79.
F-4424	3	#39	Qualified 10-29-79, work inspected 6-5-79.
F-11202	6	#39	Qualified 10-29-79, work inspected 10-12-79.
F-11206	6	#39	Qualified 10-29-79, work inspected 10-12-79.
F-11210	6	#39	Qualified 10-29-79, work inspected 10-12-79.
F-6444	6	#39	Qualified 10-29-79, work inspected 9-17-79.
F-6443	6	#39	Qualified 10-29-79, work inspected 9-17-79.
F-9379	6	#6	Qualified 10-29-79, work inspected 10-8-79.
F-9378	6	#6	Qualified 10-29-79, work inspected 10-8-79.
F-11186	9	#48	Qualified 10-29-79, work inspected 10-10-79.
F-11196	9	#48	Qualified 10-29-79, work inspected 10-11-79.
P-1149	10	#39	Qualified 10-29-79, work inspected 9-17-79.
F-5847	10	#6	Qualified 10-29-79, work inspected 9-13-79.
F-5846	10	#6	Qualified 10-29-79, work inspected 9-13-79.
F-5827	12	#39	Qualified 10-29-79, work inspected 9-14-79.
F-4448	12	#43	Qualified 10-29-79, work inspected 9-12-79.

WELD RECORD DISCREPANCIES FOR PROJECT: MIDLAND Page 2 CLASS I

TRAVELER NO.	PAGE	WELDER I.D.	COMMENTS
F-5818	12	#39	Qualified 10-29-79, work inspected 8-28-79.
F-04408	29	#39	Qualified 10-29-79, work inspected 6-5-79.
F-4404	29	#39	Qualified 10-29-79, work inspected 6-5-79.
F-11176	31	#6	Qualified 10-29-79, work inspected 10-24-79.
F-11209	31	#39	Qualified 10-29-79, work inspected 10-27-79.
F-10268	20	#30	Qaulified 1-22-80, work inspected 1-10-80.
P-1201	20	#54	Qualified 1-22-80, work inspected 1-9-80.
F-6456	20	#54	Qualified 1-22-80, work inspected 1-9-80.
F-10484	21	#54	Qualified 1-22-80, work inspected 1-10-80.
F-10458	23	#54	Qualified 1-22-80, work inspected 1-10-80.
P-1491	16	#54	Qualified 1-22-80, work inspected 1-3-80.
P-1306	40	#54	Qualified 1-22-80, work inspected 1-14-80.
F-5817	41	#39	Qualified 10-29-79, work inspected 8-27-79.
F-6485	41	#39	Qualified 10-29-79, work inspected 9-17-79.
P-1114	41	#48	Qualified 10-29-79, work inpsected 10-1-79.
F-4941	11	#39	Qualified 10-29-79, work inspected 8-28-79.
P-2579	11	#39	Qualified 10-29-79, work inspected 8-28-79.
P-1093	11	#43	Qualified 10-29-79, work inspected 10-1-79.
F-6454	11	#48	Qualified 10-29-79, work inspected 10-1-79.
F-4446	11	#39	Qualified 10-29-79, work inspected 9-20-79.
F-5837	12	#39	Qualified 10-29-79, work inpsected 9-13-79.
F-10492	41	#54	Qualified 1-22-80, work inpsected 1-10-80.
F-7256	2	#39	Qualified 10-29-79, work inpsected 6-5-79.

ATTACHMENT #4

LISTING OF MIDLAND CLASS 1 "WORKING" COPY TRAVELERS

CONTAINING NO INFORMATION PERTINENT TO THE REVIEW

Sept. 28, 1982

1171

MIDLAND

CLASS I

PLANT 2 TRAVELER COPIES WITH NO EXTRA WELDER I.D. MARKINGS

P-507	F-1947	F-2633	F-2809
657	1998	2634	2851
658	2009	2635	2852
659	2014	2636	2866
660	2022	2637	2867
661	2023	2638	2868
695	2031	2639	2869
1103	2032	2640	2870
1104	2052	2641	2871
1105	2053	2642	2872
1106	2116	2643	2873
1177	2221	2656	2874
1178	2223	2657	2875
1179	2294	2662	2976
1180	2301	2663	2877
1181	2318	2704	2878
1182	2319	2748	2879
1202	2320	2756	2880
1224	2321	2767	2881
1297	2325	2768	P-2917
F-1538	2326	2773	2918
P-1666	2327	2774	2919
1667	2330	2776	2921
F-1794	2333	2777	2922
1804	2339	2778	2955
1851	2358	2779	2971
1857	2359	2780	2972
1872	2519	2781	2973
1877	2520	2782	2974
1881	2521	2783	2975
1925	2522	2785	2976
1927	2599	2786	2977
1928	2617	2787	2978
1929	2624	2788	2984
1930	2625	2789	2986
1931	2626	2790	2988
1932	2627	2792	2989
1933	2628	2794	2990
1934	2629	2795	2992
1935	2630	2798	3007
1937	2631	2805	3008
1946	2632	2807	3009

(164)

MIDLAND

CLASS I

PLANT 2 TRAVELER COPIES WITH NO EXTRA WELDER I.D. MARKINGS

P-3010	F-6481	F-10951	F-12453
3011	6483	10952	12454
3018	6650	10953	12466
3023	8417	10954	12467
3050	8567	11960	12468
3075	7568	11988	12469
3318	8569	11997	12472
3325	8570	12002	12473
3326	8571	12033	12474
3327	8572	12034	12475
3328	8722	12043	12476
3330	8723	12051	12479
3331	8724	12063	12480
3332	8725	12086	12481
3394	8736	12091	12482
3396	8800	12096	12487
3397	8909	12100	12488
3402	8912	12101	12489
3415	8929	12114	12490
3430	8930	12115	12491
3431	8931	12116	12492
3441	8932	12117	12493
3444	8933	12118	12494
3446	8934	12119	12495
3447	8935	12120	12496
3448	8936	12121	12497
3449	8937	12123	12498
3450	8938	12126	12500
3451	8939	12128	12501
3452	8940	12130	13100
3453	8941	12132	13238
3455	8942	12134	13239
3468	8943	12136	13294
3612	9015	12138	13295
3794	9128	12140	13296
3913	9217	12142	13297
3914	9467	12144	13298
F-6385	10267	12178	13299
6469	10483	12255	13301
6471	10603	12256	13302
6472	10604	12257	13303
6473	10605	12258	13304
6474	10606	12259	13480
6477	10607	12260	13481
6476	10608	12261	13482
6478	10645	12262	13483
6479	10849	12263	13484
6480	10950	12265	13485

MIDLAND

CLASS I

PLANT 2 TRAVELER COPIES WITH NO EXTRA WELDER I.D. MARKINGS

F-13486	F-14619	F-17427
13487	14620	17428
13488	14621	17429
13497	14622	17430
13498	14623	17431
13499	14820	18437
13503	14832	17439
13504	14834	17440
13571	14835	17441
13573	14836	17442
13574	14851	17443
13575	14866	17452
13576	15503	17453
13577	15663	
13591	15665	
13603	15667	
13604	15795	
13605	15879	
13607	15891	
13608	15938	
13609	15939	
13610	15940	
13611	17066	
13612	17067	
13613	17070	
13614	17071	
13615	17073	
13616	17074	
13617	17075	
13633	17076	
13634	17117	
13686	17118	
13694	17122	
13716	17123	
13717	17124	
13718	17125	
13719	17126	
13720	17289	
13721	17297	
13723	17298	
13727	17299	
13746	17300	
13763	17301	
13764	17308	
13765	17309	
13781	17402	
13784	17424	
13828	17425	
13988	17426	

ATTACHMENT #5

LISTING OF

MIDLAND VOIDED TRAVELERS

Sept. 28, 1982

MIDLAND CLASS I VOIDED TRAVELER LIST

F-8911
11171
11173
11189
11195
P-1523
F-2768
8952
10062
10072
5830
5836
4445
5834
2833
P-495
F-13756
13758
2014
2301
2032
P-3602
F-2320
2031
11132
11118
11091
11050
13254
132[illegible]
1026[illegible]
P-1510
1511
P-1514
F-10066
10050
8816
8767
P-1112
F-8801
1872
04411
04412
11036
11105
P-2596
F-4444
5826
P-494
F-5842
6464
6465
6482
P-1150
2570
F-8742
P-1110
F-11200
11211
6643
6648
6644
6642
6652
6656

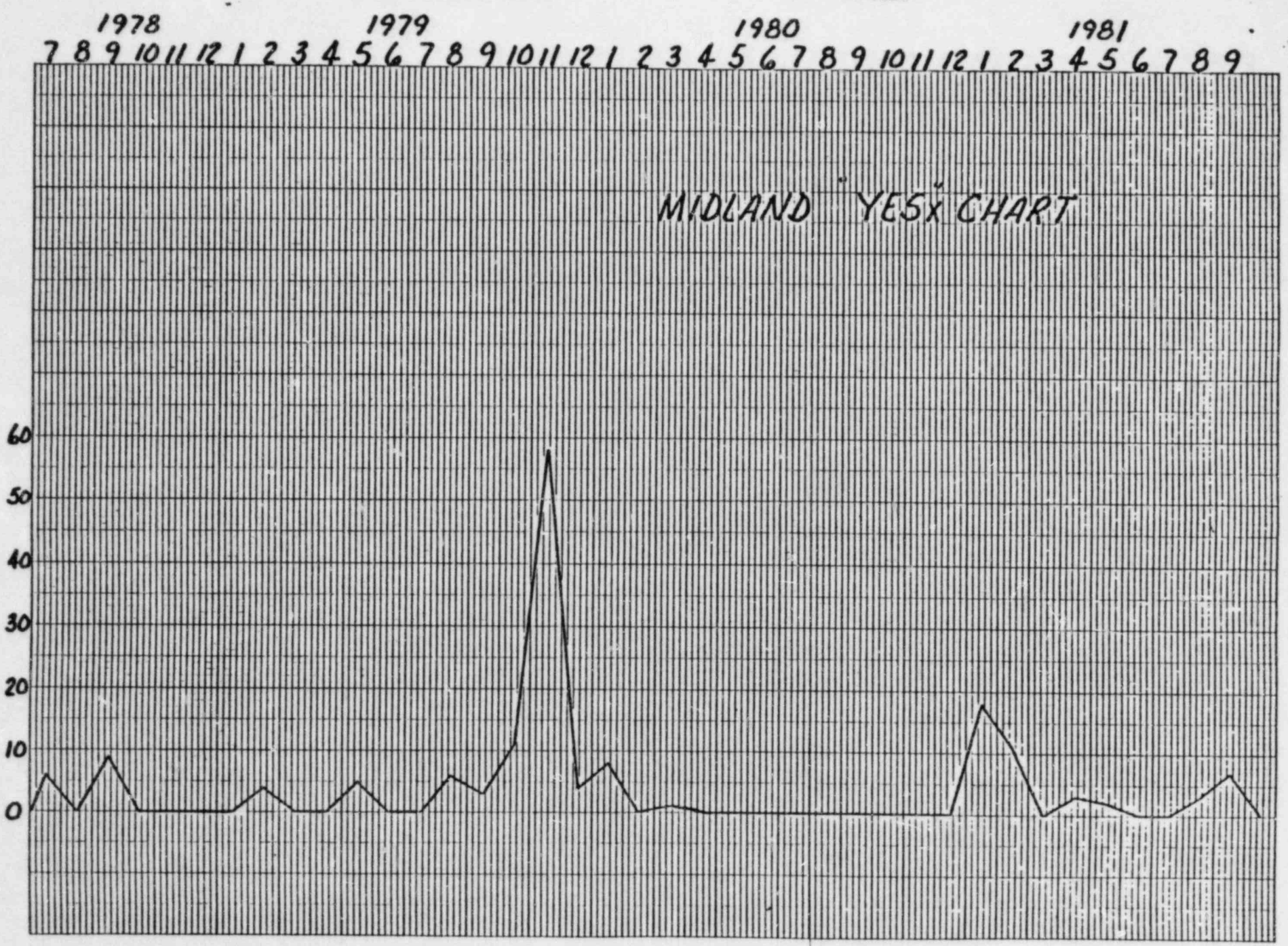
ATTACHMENT #6

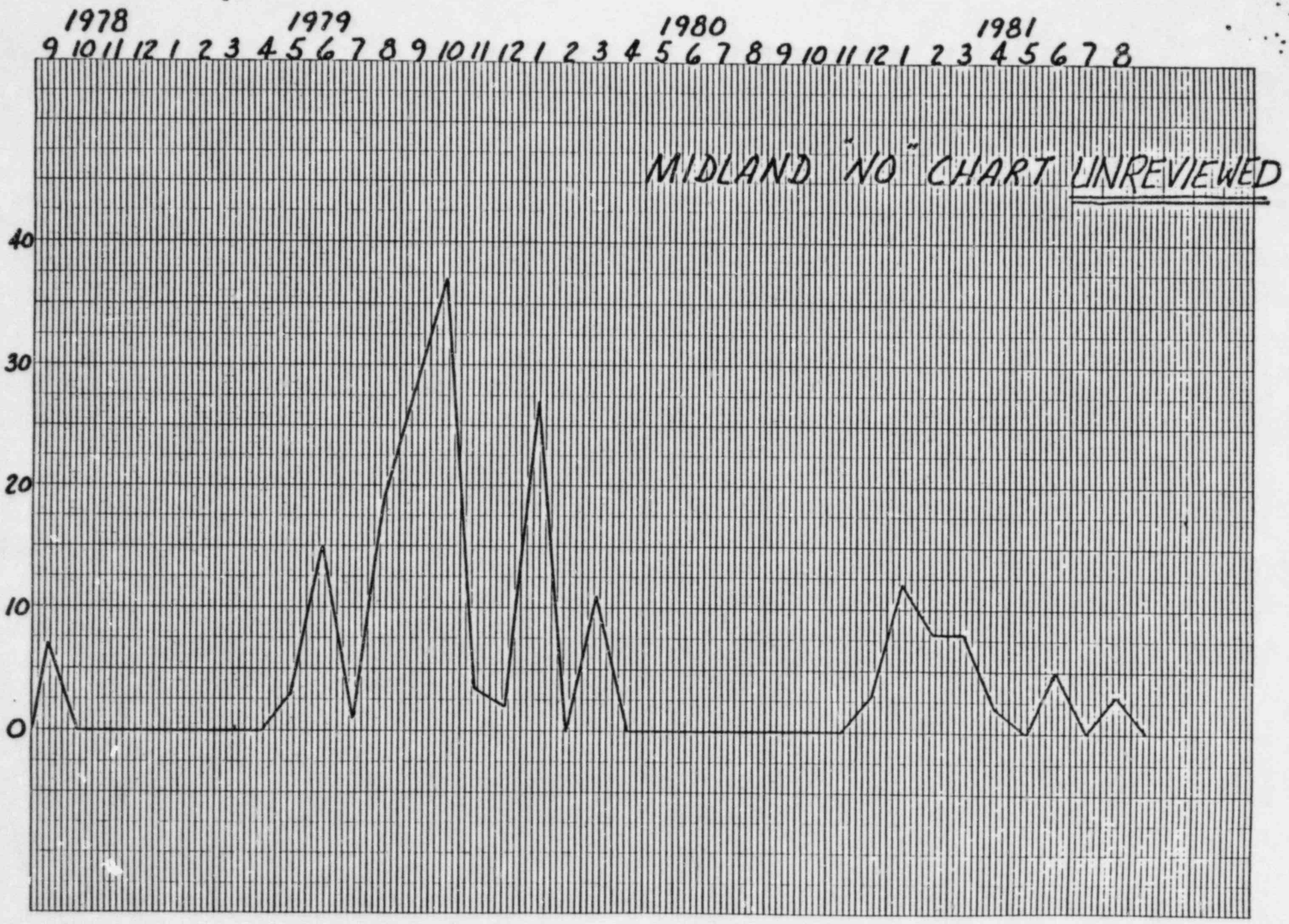
DISTRIBUTION BY DATE OF OCCURRENCE

OF

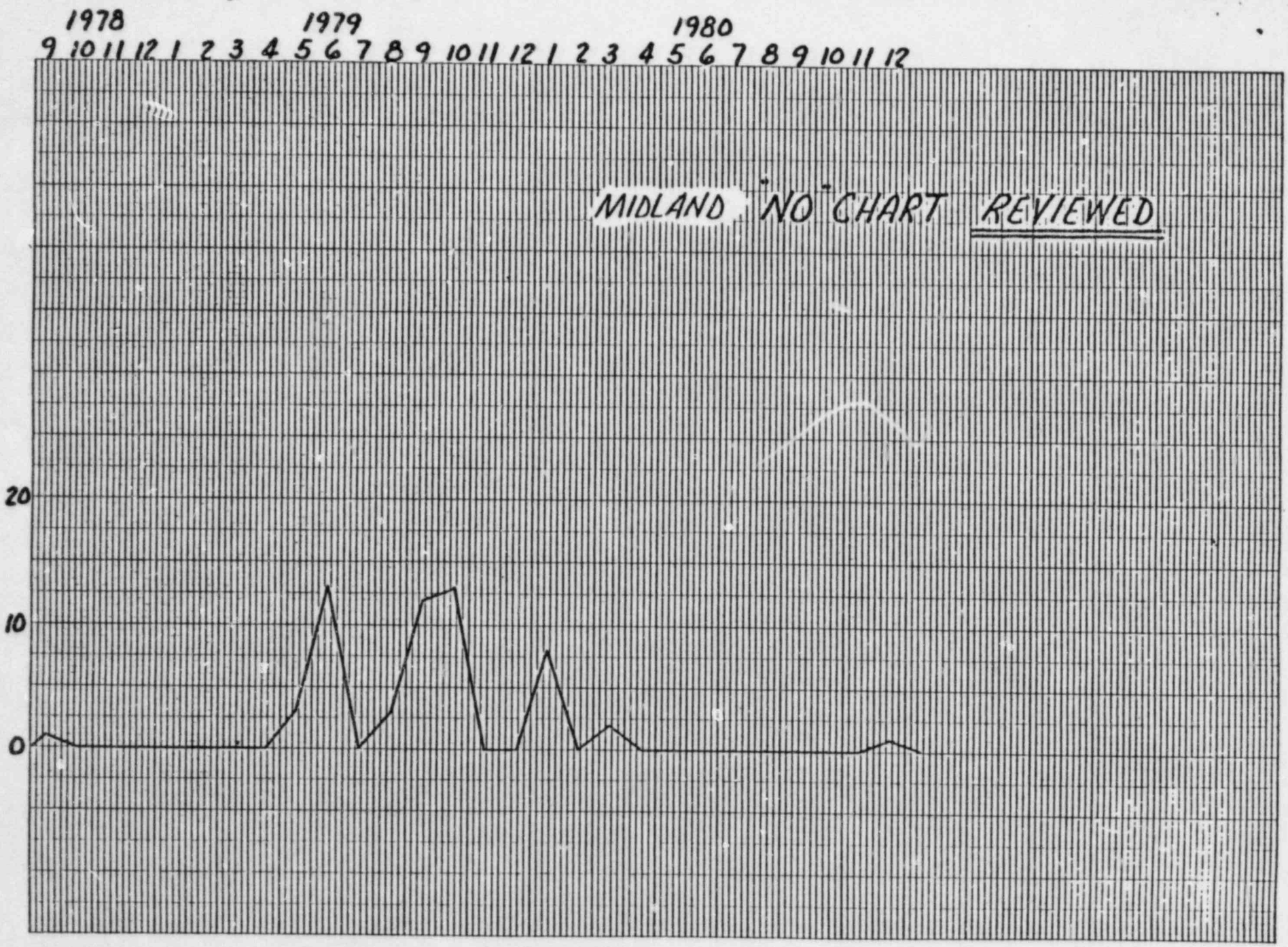
MIDLAND CLASS 1 DISCREPANT TRAVELERS

Sept. 28, 1982





46 1320



ATTACHMENT #7

WELDER MATRIX

Sept. 28, 1982

NAME	NO.	HIRE	TERM.	PLANT 2 WIRE ISSUE	GMAW CS	GMAW SS	GMAW CS/SS	SMAW CS	SMAW SS	SMAW CS/SS
H. Bartolino	14	2/1/78	6/25/78	N/A	2/3/78	N/A	N/A	N/A	N/A	N/A
T. Boyle	20	6/1/76	N/A	5/15/79-10/14/81	12/10/76	1/26/82	7/13/81	N/A	N/A	N/A
C. Byers	61	1/31/80	3/31/80	N/A	3/25/80	N/A	N/A	N/A	N/A	N/A
W. Collins	67	3/12/80	5/22/80	4/14/80-5/13/80	3/25/80	N/A	N/A	N/A	N/A	N/A
J. Dianis	9	7/31/78	9/2/79	N/A	3/2/79	N/A	N/A	N/A	N/A	N/A
I. Dickey	21	9/12/77	2/15/82	5/15/79-10/1/81	2/3/78	N/A	7/13/81	10/15/81	N/A	N/A
M. Drozdek	23	5/29/79	9/6/81	12/29/79-8/24/81	10/29/79	N/A	7/13/81	N/A	N/A	N/A
V. Genova	43	9/11/79	2/ /80	N/A	10/29/79	N/A	N/A	N/A	N/A	N/A
K. Gibson	11	7/7/78	11/19/78	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Z. Golon	49	6/1/65	N/A	N/A	4/27/76	8/28/79	9/25/79	4/9/79	N/A	N/A
I. Gonzalez	34	9/30/69	N/A	5/15/79-10/15/81	4/22/76	1/26/82	7/13/81	4/22/76	2/25/82	N/A
C. Hoffman	1	6/9/76	1/11/81	N/A	6/22/76	N/A	N/A	6/22/76	N/A	N/A
J. Jacobs	64	2/18/80	8/31/80	3/27/80-8/27/80	3/25/80	N/A	N/A	N/A	N/A	N/A
W. Jordan	5	4/3/72	9/18/81	6/5/79-8/7/81	3/2/79	N/A	7/13/81	N/A	N/A	N/A
L. Kuzmin	6	6/1/76	2/19/82	11/7/79 2/5/80	10/29/79	N/A	N/A	6/1/77	N/A	N/A
M. Matkowich	12	1/10/78	12/28/81	5/15/79 8/26/81	2/3/78	N/A	7/13/81	N/A	N/A	N/A
R. Mech	59	1/13/80	4/4/80	3/26/80	3/25/80	N/A	N/A	N/A	N/A	N/A
D. Parker	11	12/7/78	1/7/79	N/A	3/2/79	N/A	N/A	N/A	N/A	N/A
G. Petkus	26	7/10/78	1/5/82	5/15/79-3/24/81	3/2/79	N/A	N/A	4/1/81	N/A	N/A
G. Place	52	11/4/79	10/7/81	N/A	3/25/80	N/A	N/A	N/A	N/A	N/A
A. Purington	60	1/31/80	4/6/80	N/A	3/25/80	N/A	N/A	N/A	N/A	N/A
R. Quinn	9	5/27/80	N/A	7/10/80 10/5/81	7/8/80	1/26/82	8/28/81	N/A	N/A	N/A
R. Scott	63	2/8/80	N/A	8/4/80 10/14/81	7/8/80	1/26/82	7/13/82	N/A	N/A	N/A
T. Smith	39	2/5/79	8/31/80	5/15/79-8/13/80	10/29/79	N/A	N/A	N/A	N/A	N/A
C. Socha	30	9/8/78	10/19/80	N/A	1/22/80	N/A	N/A	N/A	N/A	N/A
S. Sowa	56	3/31/80	6/29/80	5/1/80-6/11/80	4/17/80	N/A	N/A	N/A	N/A	N/A
D. Way	48	7/19/79	9/21/80	11/5/79-6/20/80	10/29/79	N/A	N/A	N/A	N/A	N/A
R. Weiss	66	3/12/80	5/25/80	3/26/80-5/2/80	3/25/80	N/A	N/A	N/A	N/A	N/A
T. Weyer	54	12/7/79	10/8/81	3/3/80-9/24/81	1/22/80	N/A	7/13/81	N/A	N/A	N/A
L. Zogata	29	5/19/69	N/A	N/A	12/10/76	N/A	N/A	N/A	N/A	N/A

ATTACHMENT #8

CLEANER & INSPECTOR MATRIX

Sept. 28, 1982

CLEANER/INSPECTOR LIST

NAME	NO.	POSITION	HIRE	TERM.
S. Bilek	6	Cleaner	3/11/80	8/17/80
J. Bonsimore	14	Cleaner	8/30/78	2/17/80
E. Bryson	65	Cleaner	3/11/80	8/17/80
T. Burton	43	Cleaner	4/01/80	7/06/80
R. Diaferia	55	Cleaner	9/14/78	3/22/81
C. Eichstaedt	N/A	Q.A.	1/07/78	N/A
J. Fitzpatrick	22	Cleaner	3/29/71	N/A
J. Friskenstein	?	Cleaner	9/18/79	9/24/79
H. Geyer	N/A	Q.C.	8/66	N/A
A. Hansen	Gary	Cleaner	1/24/80	4/02/80
D. Hanslor	59	Cleaner	4/16/80	8/31/80
D. Ireton	11	Cleaner	5/16/79	11/25/79
E. Jerzak	32	Cleaner	8/23/78 11/03/80	8/10/80 3/22/81
M. Johnson	25	Cleaner	9/15/78	N/A
M. Kelly	?	Cleaner	2/16/81	3/19/82
P. Klecki	57	Cleaner	4/07/80	5/15/80
S. Lanasa	?	Cleaner	2/28/78	4/23/78
M. Lilja	15	Cleaner	6/13/79	N/A
J. Lott	33	Cleaner	?	N/A
J. McElroy	45	Cleaner	5/07/79	11/03/80
J. McGuin	44	Cleaner	1/21/80	3/22/80
J. Michalik	N/A	Q.C.	2/29/80	1/17/82
R. Miklos	51	Cleaner	12/03/79	8/03/80
R. Morency	8	Cleaner	8/10/78	12/28/80
L. Pabisinski	50	Cleaner	9/17/79	N/A
D. Richards	35	Q.C.	6/01/78	N/A
D. Rychell	4	Cleaner	4/29/74	7/09/82
K. Schaeffer	N/A	Q.C.	8/18/80	4/23/82
D. Schultz	61	Cleaner	11/30/70	5/04/80
J. Spychalski	3	Cleaner	5/76	N/A
E. Thompson	N/A	Q.C.	11/07/77	11/02/80

ATTACHMENT #9

STATEMENT OF THOMAS BOYLE

Sept. 28, 1982

STATEMENT OF THOMAS BOYLE

My name is Thomas Boyle. From approximately May 1979 to October 1981 I was the General Foreman of Plant No. 2.

During the time period when the Xerox copy of the yellow copy of the traveler was sent over to Plant No. 2, I would give Bud Prim a slip of paper containing or orally give him information with respect to who did the welding.

The initials which appear on the Xerox copies of the yellow copy are not necessarily the initials of the person doing the welding. The information on the Xerox copy was an effort to keep track of what was done to the material while in plant No. 2. Therefore, the initials on the Xerox copy could be the initials of persons, including welders, who did cleaning or shipping. Therefore, it is impossible to tell just by looking at the Xerox copy who did welding, cleaning or shipping. Also, these Xerox copies are not the official records. The official records are the actual yellow copies retained by Zack.

At the time I attempted to discard the Xerox copies, I did so because these records were not the official records and I did not feel we had any obligation to retain them. Also, I felt that because I knew that there were initials of persons on the Xerox copies who may not have done welding and who may have done cleaning or shipping and because there was no way to tell by looking at the Xerox copies who did what, I thought the Xerox copies would cause unnecessary confusion. I talked to Bud Prim. He agreed that these records were not the official records and that Zack had no obligation to retain them and that they would cause unnecessary confusion. Bud Prim agreed that I should discard them.

Dated: August 27, 1982

Thomas P. Boyle

Thomas Boyle

-1

ATTACHMENT #10

STATEMENT & QUALIFICATION RECORDS

of

KENNETH GIBSON

Sept. 28, 1982

August 27, 1982

To Whom It May Concern:

The following are the jobs and/or training I have had as a Sheetmetal Welder.

1. Attended adult evening school in Joliet for welding class.
2. Started working for Zack in 1966-67 (approximately 18 months).
3. Worked for R. B. Heyworth for 3 or 4 months.
4. Back to Zack - worked at Republic Steel job and at U. S. Steel.
5. Took union welding test in 1977.
6. Worked for Babcock and Wilcox at Morris Station Power House in Joliet (visual test).
7. Worked at Pullman Sheetmetal and took tests for them. Did not get results of tests but they should have copies.
8. Worked for Peerless Sheetmetal Co.
9. Worked for E. F. Guafstson in Skokie.
10. Worked for Merchants Sheetmetal Co. in Chicago.
11. Took visual tests for R. Irsay Company.
12. Working in Clinton Power Station for 20 months.

Kenneth Gibson

Kenneth Gibson

Att: Certifications

CERTIFICATE

OF

TEST AND APPROVAL OF WELDING PROCESS AND QUALIFICATION OF OPERATOR OF WELDING EQUIPMENT

PITTSBURGH TESTING LABORATORY, has witnessed the welding and testing of test specimens welded by an employee of

National Training Fund
for the Sheet Metal & Air Conditioning Industry
1900 L Street, N. W., Suite 405
Washington, D. C.
in accordance with

American Society of Mechanical Engineers
Boiler and Pressure Vessel Code, Section IX,
1974 Edition plus Addenda through Summer 1976

Welding Operator Kenneth Gibson SS# No. 347-28-0161

Welding Process Shielded Metal Arc

Operator Tested

This is to certify that the Welding Technic used in this test and described in SPECIFICATIONS FOR WELDING PROCESS No. PG-4690 and the results of the test given in PHYSICAL TEST REPORT No. 772675 complied with the requirements of the above code within the following limitations.

Maximum Plate or Wall Thickness 3/4"
Minimum Plate or Wall Thickness 1/16"
Welding Positions Flat, OH & Horiz.
Other Limitations Fillet & Groove

Remarks Group No. P1 to P1

No.

Order No. PG-4690

File No.

Approved 2-7-77

PITTSBURGH TESTING LABORATORY

By Earl Gallagher
DIRECTOR

ESTABLISHED 1906

PITTSBURGH, PA.

AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS, AND AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS OR EXTRACTS FROM OR REGARDING OUR REPORTS IS RESERVED PENDING OUR WRITTEN APPROVAL.

Lab No. 772675
Order No. PG-4690
Date 2/7/77

PHYSICAL TEST REPORT OF WELDER PERFORMANCE QUALIFICATION TESTS

Client: National Training Fund, for the Sheet Metal & Air Conditioning Industry
1900 L Street, N. W., Suite 405, Washington, D. C. 20036 Attn: J. R. Olejnicza

Welder Name Kenneth Gibson S. S. No. 347-28-0161 Stamp No. 44

Welding Process SMAW

Position (For vertical weld state whether upward or downward) Overhead & Horizontal Grooves
(For Plate: Flat, horizontal, vertical, or overhead, For Pipe: Axis of pipe vertical, horizontal fixed or horizontal rolled).

In accordance with Procedure Specification No. ASME Section IX 1974 Edition

Material – Specification SA36 to SA36 of P-No. 1 to P-No. 1

Diameter and Wall Thickness (if pipe) otherwise Joint Thickness 3/8" Plate

Thickness Range this qualifies 1/16" to 3/4"

FILLER METAL

Specification No. ASME SFA-5.1

Describe Filler Metal E7018

Is Backing Strip Used? Yes

– For Information Only –

Filler Metal Diameter and Trade Name 1/8" & 3/32" Lincoln Manual Flux for Submerged Arc or Gas for Inert Gas Shielded Arc Welding Multipass

Above Information by: PTL [X] Client [ ] Other

Preparation of specimen witnessed by PTL Yes [X] No [ ]

GUIDED BEND TEST RESULTS

Overhead		Horizontal	
TYPE AND FIGURE NO.	RESULT	FIGURE NO.	RESULT
4G Face Bend	PASSED	2G Face Bend	PASSED
4G Root Bend	PASSED	2G Root Bend	PASSED

Test Witnessed by PITTSBURGH TESTING LABORATORY Test No. 1811

per J. Kalman

Results of tests (do) (~~do not~~) meet requirements of AMERICAN SOCIETY OF MECHANICAL ENGINEERS, BOILER AND PRESSURE VESSEL CODE, SECTION IX, 1974 EDITION PLUS ADDENDA THROUGH SUMMER, 1976

Remarks

PITTSBURGH TESTING LABORATORY

E. D. Hess

CERTIFICATE

OF

TEST AND APPROVAL OF WELDING PROCESS

AND

QUALIFICATION OF OPERATOR OF WELDING EQUIPMENT

PITTSBURGH TESTING LABORATORY, has witnessed the welding and testing of test specimens welded by an employee of

National Training Fund
for the Sheet Metal & Air Conditioning Industry
1900 L Street, N. W., Suite 405
Washington, D. C.
in accordance with

American Welding Society
Structural Welding Code D1.1-75

Welding Operator Kenneth Gibson SS# No. 347-28-0161

Welding Process Shielded Metal Arc

Operator Tested

This is to certify that the Welding Technic used in this test and described in SPECIFICATIONS FOR WELDING PROCESS No. PG-4690 and the results of the test given in PHYSICAL TEST REPORT No. 772675 complied with the requirements of the above code within the following limitations.

Maximum Plate or Wall Thickness 3/4" Max.*
Minimum Plate or Wall Thickness Not Limited
Welding Positions Flat, OH & Horiz.
Other Limitations Fillet & Groove
*Fillet Not Limited

Remarks AWS A5.1 Electrode

No.

Order No. PG-4690

File No.

Approved 2/7/77

PITTSBURGH TESTING LABORATORY

By Earl Gallagher
DIRECTOR

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

Little

JUL 26 1983

Docket No. 50-329
Docket No. 50-330

Ms. Billie P. Garde, Director
Citizens for Accountable Government
Government Accountability Project
Institute for Policy Studies
1901 Que Street
Washington, DC 20009

Dear Ms. Garde:

In the interest of providing a fresh and independent assessment of the adequacy of the Zack Company's construction activities at Midland, the Region III Administrator directed the Region's Division of Engineering to conduct a thorough inspection of site HVAC construction activities including the concerns brought to our attention by former employees. Accordingly, we have begun the onsite inspection of Zack's activities and the detailed review of the pertinent affidavits which were provided to us by GAP so that an onsite inspection of these concerns can be conducted where appropriate.

One of the affidavits we are reviewing is a response to an investigation conducted by Region III personnel which is documented in Report No. 50-329/80-10; 50-330/80-11. The affidavit was filed with us prior to the issuance of Report No. 50-329/82-15; 50-330/82-15. This report documents the results of the follow-up of open items from Report No. 50-329/80-10; 50-330/80-11. We believe that Report No. 50-329/82-15; 50-330/82-15 addresses the substantive technical issues expressed by the affiant, and are enclosing a copy of this inspection report with the request that you make it available to him for review. If after reviewing this report the affiant still has unresolved issues, then we would like to meet with him to discuss his specific concerns.

8403220163

Please advise Mr. Duane Danielson of this office at (312)932-2610 if you are unable to contact the affiant or if you have any questions regarding this letter. We appreciate your cooperation in this matter.

Sincerely,

"Original Signed by R. L. Spessard"

R. L. Spessard, Director
Division of Engineering

Enclosure: Report Nos.
50-329/82-15;
50-330/82-15

cc w/o encls
Consumers Power Company
ATTN: Mr. James W. Cook
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
The Honorable Charles Bechhoefer, ASLB
The Honorable Jerry Harbour, ASLB
The Honorable Frederick P. Cowan, ASLB
The Honorable Ralph S. Decker, ASLB
William Paton, ELD
Michael Miller
Ronald Callen, Michigan
Public Service Commission
Myron M. Cherry
Barbara Stamiris
Mary Sinclair
Wendell Marshall
Colonel Steve J. Gadler (P.E.)
Howard Levin (TERA)
Lynne Bernabei, Government
Accountability Project

OFFICE ▶	R III	R III	R III	R III	R III	R III	R III
SURNAME ▶	Hawkins/lc	Danielson	Harrison	Little	Warnick	Spessard	Davis/Keppler
DATE ▶	7/26/83	7/26	7/26/83	7/26	7/26	7/26	7/26/83

NRC FORM 318 (10-80) NRCM 0240

OFFICIAL RECORD COPY

Warnick

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

MAR 29 1984

Docket No. 50-329
Docket No. 50-330

Consumers Power Company
ATTN: Mr. D. L. Quamme
Site Manager
P. O. Box 1963
Midland, MI 48640

Gentlemen:

SUBJECT: DeLaval Diesel Generator Mechanical Equipment Installation Involving ASME Section III Code and Non-Code Work

The NRC staff has concluded a review of the work activities described in your letter dated March 15, 1984, and discussed in detail at a meeting with your staff on March 7, 1984. The NRC staff has determined that these work activities are vendor related and fall outside the scope of the Construction Completion Program (CCP).

The staff has reviewed your overall program, procedures, Project Quality Control Instructions (PQCIs), the involvement and interfaces with the Authorized Nuclear Inspector (ANI), the six dedicated QC inspectors from MPQAD, and the dedicated MPQAD QA engineer, the DeLaval field representatives and QC inspector, the assignment of a dedicated Bechtel team and the overview by the independent third party, Stone and Webster. Based on this review the NRC has concluded that CPCo has completed the prerequisite requirements and has in place adequate controls to begin these activities

This letter therefore authorizes Consumers Power Company to proceed with the DeLaval Diesel Generator Mechanical Work.

Sincerely,

ORIGINAL SIGNED BY J. J HARRISON

J. J. Harrison, Chief
Midland Section

cc w/CPCo ltr dtd 3/15/84:
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
The Honorable Charles Bechhoefer, ASLB
The Honorable Jerry Harbour, ASLB
The Honorable Frederick P. Cowan, ASLB
William Paton, ELD
Michael Miller
Ronald Callen, Michigan
Public Service Commission
Myron M. Cherry
Barbara Stamiris
Mary Sinclair
Wendell Marshall
Colonel Steve J. Gadler (P.E.)
Howard Levin (TERA)
Billie P. Garde, Government
Accountability Project
Lynne Bernabei, Government
Accountability Project
Stone and Webster Michigan, Inc.

RIII	RIII	RIII	RIII	RIII	RIII	RIII
Gardner/db	Warnick	Norelius	Lewis	Davis	Keppler	Harrison
03/26/84	3/29/84	3/28	3/28/84	3/28	3/	03/28/84