

August 29, 1984

Our Ref: QCG-900

Mr. Uldis Potapovs, Chief Vendor Program Branch Division of Quality Assurance Safeguards and Inspection Programs UNITED STATES NUCLEAR REGULATORY COMMISSION Region IV 611 Ryan Drive, Suite 1000 Arlington, TX 76011

Dear Sir:

Subject: Docket No.99900317/84-01 Audit - March 12-16, 1984 NRC Correspondence April 14, 1904 C.E.S. QCG-770 May 9, 1984

The following is submitted to complete our response to the above referenced audit:

NONCONFORMANCE E: Documentation of Approved Vendors List.

When our Nuclear Industry related program was formulated in the mid to late 70's, a great deal of emphasis was placed on the ASME Code III requirements. In so doing our enthusiasm carried over into other areas where we tended to overdo the requirements. At the same time we anticipated an unquestionable enthusiasm from all of our vendors to support our program in the detail we demanded. Unfortunately, our enthusiasm was not shared. Some companies felt that their expertise, developed in a specific field, was proof enough of their respective and unique capabilities. Consequently, we were forced into a situation in which we found it necessary to deviate from the program which we mandated, and tacitly approved the services of the seven companies in question.

Now we have the experience to reflect upon and can revise our vendors list to include these companies in accordance with paragraph 2.1 of QC/IP-APV-2 which reads as follows:

"2.1 Vendors shall be placed on Approved Vendor List QC/IP-APV-2 based upon either satisfactory past performances or QA program evaluation."

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COOPER-BESSEMER RECIPROCATING

Lincoln Avenue Grove City, Pennsylvania 16127 (412) 458-8000

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INTEGRAL ENGINE COMPRESSORS . MOTOR-DRIVEN COMPRESSORS . POWER ENGINES

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NONCONFORMANCE F - Calibration Status of Measuring and Test Equipment

Item 1, 2, and 3 - Calibration status of overdue test equipment has been updated and appropriate iabels are in use.

Item 4 - See Exhibit A.

NONCONFORMANCE H - No evidence of instruction and/or procedures for Procurement Document Control.

Instructions and/or procedures addressing procurement document controls are found in the following excerpts from QAM-1000-1, Section 5, Paragraph 5.2:

"The procurement document package consists of the purchase order, the procurement drawing for the item and any attendant specifications that are imposed by the procurement drawing. . . "

"All requirements to which the item shall conform and all documentation (i.e. Certified Material Test Reports, etc.) which must be supplied are specified by the procurement drawing and/or attendant specification."

"The original issue and subsequent revisions to procurement documents. . . are reviewed by Quality personnel. . . Quality review is documented by signature and date. . . "

"Deficiencies detected are reported to Purchasing by Quality personnel. . . Revised purchase orders are then issued. . . "

These instructions ensure the reference of technical, quality, and purchaser requirements on purchase orders and change orders.

NONCONFORMANCE J - Failure to establish measures to preclude M&TE calibration nonconformances.

The continued accuracy of measuring and test equipment is assured through a planned calibration program. This procedure, defined in QCP-10-15, established a computerized tool recall and inventory program. The system is controlled by a Master Computer List which on a weekly basis identifies measuring and test equipment due for calibration. Review and surveillance of this program is conducted on a continuing basis.

As a result of such surveillance and as evidence of measures taken to ensure the credibility of this procedure, all personal tools of manufacturing personnel were recently added to the Master List and will be calibrated on a routine basis.

Also, please note information in Exhibit A (Nonconformance F) which supports the philosophy involved in this procedure. While the possibility for error exists in any system, the redundancy system established precludes the probability of this nonconformance being a generic problem.



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NONCONFORMANCE K - Failure to provide evaluation of nonconformance within 30 days.

Our investigation of the incident cited in this nonconformance supports the finding of the auditors.

In the event of a future occurrence necessitating evaluation of a nonconformance per Part 21, the following measures will be taken:

- In the request for evaluation to the Product Engineering Manager, reference will be made to the requirement of QCP-10-14 paragraph 4.2.2 requiring a written response within 30 days.
- (2) Follow-up by Quality Control personnel will be corjucted if a response has not been received within 20 days.

NONCONFORMANCE L AND M - Design Control Measures

A review and evaluation of the Requests for Drafting Action (RFDA) cited in this nonconformance was made by the Manager, Engine Engineering and Chief Design Engineer. The report of this review is attached. (Exhibit B).

To preclude recurrence of such omissions, the Procedure for Processing Requests for Drafting Action (SA-4) is currently being revised and will include instructions relative to the required review and approval of RFDA's.

NONCONFORMANCE 0 - Identification of potential Part 21 nonconformances.

Escalation of potential nonconformances into the Part 21 review system is accomplished through paragraph 4.2.1 of QCP-10-14 which reads in part:

". . . a Material Review Request shall be issued. . . The Material Review Request shall state "Reported per QCP-10-14" so that reviewing personnel are aware that a potential reportable deficiency exists. . ."

The procedure further requires an evaluation of the nonconformance by the Product Engineering Manager. This evaluation determines whether or not the nonconformance is a reportable deficiency. All supporting data is maintained by the Quality Control Department until the affected equipment is decommissioned from nuclear service.

NONCONFORMANCE P - Compliance with 10 CFR 21 two-day reporting requirement.

The subject of this nonconformance is covered in QCP-10-14, Quality Program Requirements for Reporting of Deficiencies as Required by 10 CFR 21.

In the light of this nonconformance, it would appear that paragraphs 4.2.3 and 4.2.4 of QCP-10-14 do not adequately address the requirement of 10 CFR 21.21 (b), (2) and (3). Consequently, these paragraphs will be revised to more clearly define the procedure required to accommodate the two-day reporting requirement.



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We trust the information provided will satisfy this audit.

Yours truly,

W.N 1

W.H.A. Lambert Manager, Quality Control

/b

cc: F.B. Stolba-w/att. File/K-4b



## ATTACHMENT TO AUDIT NONCONFORMANCE REPORT DOCKET NO. 99900317/84-01 ITEM 4 OF NONCONFORMANCE F NUCLEAR REGULATORY COMMISSION

Section QCP-10-14 of our manual covers the calibration and care of measuring equipment. Broadly speaking, measuring equipment may be divided into two categories, namely those which are adjustable and those which are not.

Typical of the useage of the adjustable group is the micrometer, and paragraph 8.5.2 reads as follows:

## 8.5.2 Frequency of Calibration:

- a. Each time used.
- Inspected per paragraph 8.5.3 every six (6) months with precision measuring equipment at four different barrel settings.

Note Item (a)

Paragraph 10.1 Thread Plug Gages, which is quoted below, is typical of the approach to the non-adjustable group which includes plug gages of all types as well as snap gages, etc.

- 10.1 Thread Plug Gages
  - 10.1.1 General Use: Go and NoGo Thread Plug Cages will be used to check internal threads to the tolerances required by Company Standards SD-124.
  - 10.1.2 Frequency of Calibration: Every three (3) months.

10.1.3 Procedure for Inspection of Calibration:

- a. Clean
  - 1. Clean with watch cleaning solution
  - 2. Rinse with watch rinsing solution
  - 3. Air hose dry
- b. Check Check for physical damage, nicks and burrs.
- c. Check major diameter and pitch diameter.
  - Go Thread Plug Gages will be retired from service when pitch diameter is found to be more than .0002 under basic pitch diameter of Class X Gage Tolerance. (See Exhibit G).
  - (2) NoGo Thread Plug Gages will be retired from service when pitch diameter wear is under basic pitch diameter of Class X Gage Tolerance. (See Exhibit G).

COOPER ENERGY SERVICES

Exhibit A Page 1 of 2 It is the position of Cooper Energy Services that the factors discussed in this attachment deem the requirement for evaluation of the validity of work performed by out of tolerance M&TE unnecessary. Such evaluation would merely add further redundancy to our measuring system.



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Exhibit A Page 2 of 2

DATE	8/23/84			COOPER ENERGY SERVICES
				INTER - OFFICE
то	. D. T. Blizzard (Name & Location)	GC	4115	MEMO
FROM	P. R. Danyluk (Name & Location)	GC	4156	

SUBJECT \_\_\_\_\_ Items L & M on Pages 5 and 6 of NRC Report Shirley Bigley Letter to You of 7/20/84

Attached are copies of the referenced RFDA's in Item L (18189, 18236, 18250, 18323). John Konkler and myself have reviewed these change requests for adequacy and find no problems. RFDA 18189, written in 1979, relates to liftir tackle. RFDA 18236, written in 1980, relates to the cylinder head breather clearance over the cylinder head and is extremely trivial and at best an unnecessary, cosmetic change. RFDA 18250, written in 1980, doubled the wall thickness of a fuel line to stop a cracking problem Els Lerch found during bending operations in the shop. This was checked by Carl Caulkins in Mount Vernon. RFDA 18323, written in 1984, updated a piping drawing to remove a solenoid valve in the aftercooler heater section that had never worked in the field and simply made the drawing agree with field installations.

Attached also are copies of the referenced RFDA's in Item M (18114, 18129, 18133, 18124, 18309). I reviewed all these changes with John also and find no design inadequacies. All had incomplete "Orders Affected" information and three were not signed at the bottom. RFDA 18114, written in 1978, had to do with the bolts on the fuel oil day tank cover plate interfering with a flange weld probably because of manufacturing variability in the weld. RFDA 18129, written in 1978, had to do with elimination of cosmetic rework of cylinder block castings. The change is trivial. RFDA 18133, written in 1978, added a backlash note to the turning gear assembly drawing. This type of change would normally not require any order affected information. RFDA 18134, written in 1978, changed the depth of a tapped hole in the piston pin end cap. Hole is only on part for use by manufacturing in fixturing and has no other function. RFDA 18224, written in 1979, was a companion change to pipe flange required by a change to the lube pump flange. RFDA 18309, written in 1983, adds center drill information required by a change in manufacturing tooling. There is no impact on engine whatsoever as hole is only used for fixturing in manufacture.

Hope this clears up any questions.

and A. Damytick

Paul R. Danyluk

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PORM 133

cc: J. C. Konkler S. P. Bigley

Attachments

Exhibit B Page 1 of 11

HEV. 178 PHINTEDINUSA COOPER ENERGY SERVICES wig == --REQUEST FOR DRAFTING ACTION A"K. SEE SA-4 FOR PROCESSING PROCEDURE 18,189 REQUEST NO\_\_\_\_ DATE: 5-15-79 DWG. ... 8/M NO. KSV- 44-5 PART NO: K51-44-7 LIFTING TACKLE NOMENCLATURE \_\_ C. CALKINS 030 REQUESTED BY: DEPT: CHANGE REQUESTED: NOTE #7 TO READ : "UNIT MUST ALWAYS BE REVISE AS SHOWN WHICH REQUIRES GENERATOR LIFTED TUNCTION BE REMOVED." BOX NOTE #7 PRESENTLY STRTES : " GENERATOR JUNCTION BOX TO BE REMOVED FROM GENERATOR BEFORE SHIPMENT," Evaluated and Approved to satisfy NRC Audit Nonconformances. he a Paul R. Danyluk Manager, Engine Engrng REASUN FOR CHANGEST 23, 1984 WHEN UNIT 15 WITHOUT CABLES LIFTED ON GENERATOR END, THE OUTBOARD BRG PROVIDES NO SUPPORT FOR THE GENERATOR SHAFT AND ROTOR SO THIS WEIGHT IS CANTILEVERED FROM THE END OF THE CRANKSMAFT. THIS STRESS ON THE CRANKSHAFT 15 NOT PERMISSARIE JOHN HORNE MEMO DATED MAY 2, 1979. REF. ORDERS AFFECTED PROD. INFORMATION DISPOSITION OF STOCK REG FINISH OPEN MO'S ALL ROUGH PRODUCING UNDERS NUCEAR UNITS UNIT ASSEMEN LIMITED STOCK INISH STOCK RUUCH STOCK STOCK IN PRUCESS CLOSED MC . AFFECTS INSTRUCTION INSTRUCTION INSTRUCTION SPECIAL INSTRUCTION DEVELLEPMENT ONDERS PATTERN NEW AFFECTS WISE UP MAKE OLC W/D CHU HUO CHG #10 Cm -HE WORK NO. ALTO REPAIR ORDERS AFFECTS PEWORK MAKE NEW HEPAIRS ONLY SLANP SCHAN TEMO SCRAF FLI .. RE ORDERS REIDENTIFY AFFECTS REWORK SCRAP SCRAP COST TO COST TO CASTING MATL MACHINING IATOT WE DING ESI CHG CHG PATT CHG. TOOLS FORECAST STD. COST COST PART NO. HRS 5 HAS 5 BEFORE AFTER REQUEST ROUTING CEPT NAME DATE DEPT NAME DATE DEPT NAME DATE DEPT NAME DATE VEINCOS ROUTING QUALITY QUALITY 1464 DEPT CONTROL ENGINEERING -----1001 ERECTION SHUP DESIGN SUPERVISOR IORY SHOP COST OR LIAISON SUPT SUPT PURCHASING ENGR ADDITIONAL OR CLARIFICATION NOTES. CHARGE SCRAP ANU/UR REWORK TO DEP ELS LERCH PAUL MG GLENAHIN Calkens JOHN HORNE ENGR. APPROVAL Exhibit B

Page 2 of 11

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FORM 193 REV. 3-76 PRINTED IN USA COOPER ENERGY SERVICES Mig No ... smen \_\_\_\_\_ or \_\_\_\_ REQUEST FOR DRAFTING ACTION SEE SA & FOR PROCESSING PROCEDURE NUC 18,236 DATE: 3-17-80 DWG. ... B/M NO. KSV-11-3 REQUEST NOL NOMENCLATURE: HEAD - POWER DIESEL PART NO: REQUESTED OF CALKINS OBO DEPT: CHANGE REQUESTED: CHANGE ITEM # 21 FROM \_\_ 625 B- 60-1Q 70 GSB. 60.10#1 Evaluated and Approved to satisfy NRC Audit Nonconformances the 5. Paul R. Danyluk Manager, Engine Engrng. August 23, 1984 REASON FOR CHANGE: 63B.60.10 ALLOWS ONLY 5/32 CLEARANE BETWEEN BOTTOM OF BREATHER HOUD AND CYL. HEAD COVER. 650. 60-10#1 15 518 LONGER THAN 6258-60-1Q. THIS WILL ALLOW MORE BREATTER YOL UME. ORDERS AFFECTED INFORMATION PROD. DISPOSITION OF STOCK REG FINISH ROUGH PRODUCING ORDERS ASSEMBLY × INIT OPEN MO'S IN PROCESS STOCK LIMITED STOCK INISH STOCK ROUGH STOCK CLOSED MO'S AFFELT 10 INSTRUCTION INSTRUCTION INSTRUCTION INSTRUCTION INSTRUCTION SPECIAL WO CHG MAKE OLD W/O CHG W/O CHG DEVELOPMENT ORDERS WID CHG × PATTERN NEW REWORK REWORK REWORK OR DIE MARE NEW REPAIR ORDERS AFFECTS ALTO REPAIRS ONL NO. SCRAP SCRAP SCRAP TEMO REIDENTIFY -----FUTURE ORDERS AFFECTS REWORK SCRAP SCRAP TOTAL COST TO COST TO CASTING MATI MACHINING WELDING EST CHG FORECAST CHG. PATT. CHG. TOOLS STD. COST COST PART NO. HRS HRS 5 REFORE AFTER REQUEST ROUTING DEPT NAME DATE OEPT NAME DEPT NAME DEPT NAME DATE DATE DATE METHODS QUALITY ROUTING CLALITY ENGINEERING ENGR DEPT CONTROL PATT 100 FRECTION SHOP DESIGN SUPERVISOR FORT SHOP COST OR LIAISON SUPT SUPT PURCHASING ENGR CHARGE SCRAP AND/OR HE WUNK ADDITIONAL OR CLARIFICATION NOTES CHANGE TO PT # GSB-25 - 10#1 AS SOON AS PRACTICLE ? Calking Earl ENGR. APPROVA Exhibit B ELS LERCH Page 3 of

FORM 193 REV. 3-76 PRINTED IN USA COOPER ENERGY SERVICES Sheet\_\_\_\_\_ of \_\_\_\_\_ MIE M. \_\_ REQUEST FOR DRAFTING ACTION NUC. SEE SA & FOR PROCESSING PROCEDURE REQUEST NO: 18,250 DATE: 12-4-80 DWG. . B/M NO. KSV-58-9BG CONNECTION (FUEL OIL) PART NO: NOMENCLATURE: 030 DEPT: C. CALKINS REQUESTED BY: CHANGE REQUESTED: CHANGE ITEM "B" FROM 3.991-001-032 TO 3-997-001-034 Evaluated and Approved to satisfy NRC Audit Nonconformances. 2 Paul R. Danyluk Manager, Engine Engrng. August 23, 1984 REASON FOR CHANGE: 3-977-001-032 HAS ,035 WALL THICKNESS WHICH TUBING CRACKS WHEN 15 BENT. DOES 3-997-001-034 HA5 .065 WALL FAIRKNESS AND NOT CRACK. REQ. BY LERCH 12.4.80 BY PHONE NIAGARA MOHAWK 50-0407 DISPOSITION OF STOCK INFORMATION PROD. ORDERS AFFECTED REG FINISH ROUGH PRODUCING ORDERS UNIT ASSEMBL OPEN MO'S 7190-91 STOCK STOCK INISH STOCK ROUGH STOCK IN PROCESS LIMITED NO AFFECT CLOSED MO'S INSTRUCTION INSTRUCTION INSTRUCTION INSTRUCTION INSTRUCTION SPECIAL USE UP MAKE OLD W/O CHG W/O CHG WIO CHG DEVELOPMENT ORDERS AFFECTS PATTERN NEW REWORK OR DIE REWORK REWORK MAKE NEW NEPAIRS ONLY ALTO REPAIR ORDERS ----A F FEGTS SCRAP SCRAP SCRAP TEMP REIDENTIFY REWORK UTURE ORDERS AFFECTS REWORX SCRAP SCRAP TOTAL COST TO COST TO CASTING MATI MACHINING WELDING EST CHG FORECAST CHG. TOOLS CHG. PATT. STD COST COST PART NO. 5 HRS 5 HRS REFORE AFTER ROUTING REQUEST DEPT NAME DATE DEPT NAME DATE DEPT NAME DATE DEPT NAME DATE METHODS ROUTING QUALITY QUALITY ENGINEERING ENGA DEPT CONTROL ERECTION PATT TOOL SUPERVISOR SHOP DESIGN IORY COST OR LIAISON SHOP PURCHASING SUPT SUPT ENGR CHARGE SCRAP AND/OR HE WORK ADDITIONAL OR CLARIFICATION NOTES LEKEH ELS

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4-3-84 REQUEST FOR DRAFTING ACTION FORM 193 REV. 3-79 PRINTED IN USA COOPER ENERGY SERVICES FOR PROCESSING PROCEDURE SEE SA-4 (COOPER-BESSEMER) ES 14 (SUPERIOR) JLE SHEET OF \_ 8, 323 REQUEST NO: REQUESTED BY DATE: DWG. OR B/M NO: nept: PART NO: KSV-91-25 OMENCLATURE PATT/FORG/DIE NO. MFG. NO. ten an CHANGE REQUESTED: eater ano sepe sector 51-91-20 61 ine Evaluated and Approved to satisfy NRC Audit Nonconformances. Paul R. Danyluk Manager, Engine Engrng. August 23, 1984 as decided REASON FOR CHANGE was m ssemplus ne

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c/c Bob Darr

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~ COOPER ENERGY SERVICES of . REQUEST FOR DRAFTING ACTION 18,129 SEE SA & FOR PROCESSING PROCEDURE DATE:\_ 11-8-78 DWG. - B/M NO. REQUEST NOL NOMENCLATURE: BLOCK - CULINDER PART NO: KSV-9-2A KSV-9-28 KSV-9-28 KSV-9-28 KSV-9-40#2 REQUESTED BY: BOR COLE (FOUNDRY) HORSMAN DEPT:-220 CHANCE REQUESTED: SEC. G-G INCREASE THE 3/4" RAD I FOR THE 33/32 DIA. DRIVED HOLES TO 15/16 RADII. CHANGE THE 15/8" DIA. SPOTFACE TO 2" DIA. SPOTFACE Evaluated and Approved to satisfy NRC Audit Nonconformances. tan Paul R. Danyluk Manager, Engine Engrng. August 23, 1984 4 0 Sec. 2 The start Barry - 23 - million ... REASON FOR CHANGES CALSES THIN WALLS AROUND =3/32 Did. THIS GREATES EXTENSIVE REWORK DRILLED LOIES INFORMATION DISPOSITION OF STOCK ORDERS AFFECTED PROD. FINISH ROUGH PRODUCING ORDERS UNIT ASSEMBLY REG OPEN MO'S IN PROCESS STOCK STOCK FINISH STOCK ROUGH STOCK LIMITED CLOSED MO'S INSTRUCTION INSTRUCTION INSTRUCTION INSTRUCTION INSTRUCTION SPECIAL WSE JP W/O CHG WO CHG WIO CHG PATTERN NEW OR DIE ALTO NO. TEMP MARE OLD DEVELOPMENT ORDERS REWORK REWORK REWORK MAKE NEW REPAIRS ONLY REPAIR ORDERS SCRAP SCRAP SCRAP REIDENTIFY REWORK UTURE ORDERS REWORK SCRAP SCRAP TOTAL EST WELDING COST TO COST TO CASTING MATL MACHINING FORECAST CHG COST CHG. PATT. CHG. TOOLS STD. COST 5 HRS \$ PART NO. HRS 3 REFORE 352 -KSV-BLUCK AFTER REQUEST ROUTING NAME NAME DATE NAME DATE OFPT DATE DEPT HAME DATE DEPT DEPT H2 QUALITY METHODS ROUTING 1/10/78 11/10 QE CCB ENGR. DEPT CONTROL vic ERECTION PATT 1001 90 Balley 11/22/78 la SHOP 222 SUPERVISOR DESIGN 0 COST OR LIAISON FOR SHOP 4 Alla 1/15/ 11/2 Ro SUPT SUPT PURCHASING ENGR. CHARGE SCRAP AND/OR REWORK ADDITIONAL OR CLARIFICATION NOTES Exhibit B Page 7 of

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CHGR. APPROVA

FUHM 193 A COOPER ENERGY SERVICES REV. 1-76 PRINTED IN USA UNITE G Kte No REQUEST FOR DRAFTING ACTION 5-vet\_\_\_\_\_ at \_\_\_\_ SEE SA & FOR PROCESSING PROCEDURE 18,133 DATE: 12-4-78 DWG. 04 B/M NO. K5V-55-2 REQUEST NO ENG. TURNING GEAR NOMENCLATURE .\_ \_\_\_\_ PART NO: \_K51-55-3 - KSV- 55- 4 - KSV- 55- 5 REQUESTED BY: \_\_\_\_\_ C. CALKINS 030 DEPT CHANGE REQUESTED: NOTE: "BACKLASH BETWEEN ITEMS #6 815 . ADD .016 -.021 Evaluated and Approved to satisfy NRC Audit Nonconformances. a /Paul R. Danyluk Manager, Engine Engrng. August 23, 1984 REASON FOR CHANGE: THIS INFO. NEEDED ON ASSY. DAG. FOR SETTING GEARS AT ASSY. . . ORDERS AFFECTED PRCD. INFORMATION DISPOSITION OF STOCK OPEN MO'S REG PRODUCING ORDERS FINISH ROUGH UNIT ASSEMBL LIMITED STOCK STOCK CLOSED MO'S FINISH STOCK ROUGH STOCK IN PROCESS SPECIAL INSTRUCTION NSTRUCTION INSTRUCTION I INSTRUCTION INSTRUCTION DEVELOPMENT ORDERS USE UP MAKE OLD PATTERN OR DIE MAC LHS NEW WILL CHL REWGON REPAIR ORDERS NO. HEWCHK ALTO REPAIRS ON MARE HEN REACUE SURAP TEMP Sheep STRAP FUTURE ORDERS -REIDENTIFY REWORK SCRAP SCRAP COST TO COST TO CASTING MATL MACHINING WELDING CTAL CHG 123 CHU. PATT CHG. TOOLS FORECAST STD. PART NO. COST COST HRS \$ HRS BEFORE AFTER REQUEST ROUTING DEPT NAME DATE DEPT NAME DATE DEPT NAME DATE DEPT NAME DATE METHODS ROUTING QUALITY ENGR QUALITY ENGINEERING DEPT CONTROL PATT TOOL ERECTION SHOP DESIGN SUPERVISOR FORY SHOP COST OR LIAISON SUPT SUPT PURCHASING ENGR. ADDITIONAL OR CLARIFICATION NOTES CHARGE SCHAP ANCION PEWORK

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Exhibit B

1-3-79 COOPER ENERGY SERVICES REQUEST FOR DRAFTING ACTION 18,134 SEE SA.4 FOR PROCESSING PROCEDURE DATE: 12-21-73 DWG. - B/M NO. KSV-5-2 1910 REQUEST NOL PAP ENCLATURE: PART NO: JESTED BY: \_\_\_\_ NN KEPLE E/METHOLS 235 To 1/2" AT E-1 DIM 24AAIER CHANGE REQUESTED: Evaluated and Approved to satisfy NRC Audit Nonconformances. ant Paul R. Danyluk Manager, Engine Enging. August 23, 1984 REASON FOR CHANGE: TO EACILITATE MACHINING IN TAPE MACHINE - PRESENT nim DUES MAT GIVE NO:124 OLEASANDE A Lot 13 MA OF HELT 2. CING PROD. INFORMATION DISPOSITION OF STOCK ORDERS AFFECTED PRODUCING ORDERS UNIT ASSEMBLY REG FINISH ROUGH PEN MO'S IN PROCESS LIMITED STOCK STOCK FINISH STOCK ROUGH STOCK INSTRUCTION CLOSED MO'S INSTRUCTION INSTRUCTION INSTRUCTION INSTRUCTION SPECIAL WSE UP MARE OLD W/O CHG W/O CHG WIO CHG DEVELOPMENT ORDERS PATTERN NEW REWORK REWORK REWORK OR DIE MAKE NEW ALTO USE PAIRS ONLY EPAIR ORDERS SCRAP SCRAP SCRAP TEMP REIDENTIFY UTURE ORDERS REWORK SCRAP SCRAP TOTAL EST. FORECAST VAR. COST WELDING COST TO COST TO CASTING MATL MACHINING CHG COST CHG. PATT CHG. TOOLS STD. COST HRS 5 HRS PART NO. REFORE AFTER REQUEST ROUTING DEPT NAME DATE DEPT NAME DATE OEPT NAME DATE DEPT NAME DATE 田 QUALITY ROUTING METHODS 12/27 12/27/75 in 12-17 OE CCR CONTROL ENGR DEPT. ERECTION ..... 1004 22 15 DESIGN SUPERVISOR COST OR LIAISON SHOP 2 11427 PURCHASING ENGR. SUPT 12 CHARGE SCRAP AND/OR REWO ADDITIONAL OR CLARIFICATION NOTES Exhibit B Page 9 of 11

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FORM 193 REV. 176 PRINTED IN USA COOPER ENERGY SERVICES \_ 01 \_ REQUEST FOR DRAFTING ACTION REQUEST NO. 18,224 DATE 12.4-79 DWG. -BUM NO. KSV-58-8 NOMENCLATURE: E.L. LERCH /A. ton my PART NO: \_\_\_ EQUESTED BY: Bm/ DEPT: CHANGE REQUESTED: 17, 36 CHANGE PT. FROM 1-025-001-011 TO 1-025-003-011 ALSO CHANGE NE REGO OF IT. TA FROM 286 TO 278 AND INCREASE Nº REDO OF IT' 171 FROM 16 TO 24 SHT #1/ LOC. (J-4-5) @ LO PUMP DISCHE CHG. BALLOON EROM ITEM \$ 38 TO IT \$ 171 Evaluated and Approved to satisfy NRC, Audit Nonconformances. how anager, Engine Engrng. Paul August 23, 1984 REASON FOR CHANGE: TO CONFORM WITH CH'4" I ON KSV-58-85 (CHG. FLG. FROM 5"- 150 RF TO 5-300" RF TO PAREE W/PUMP DISCHARGE FLG.) ORDERS AFFECTED PROD. INFORMATION DISPOSITION OF STOCK FINISH PRODUCING ORDERS UNIT ASSEMBLY REG ROUGH OPEN MO'S STOCK IN PROCESS STOCK FINISH STOCK ROUGH STOCK LIMITED CLOSED MO'S INSTRUCTION INSTRUCTION INSTRUCTION INSTRUCTION INSTRUCTION SPECIAL W/O LHG MAKE OLD W/O CHG W/O CHG WIN CHG DEVELOPMENT ORDERS OR DIE ALTO X REWORK -----REWORK MARE NEW ME POURS CHAN REPAIR ORDERS SURAP SCRAP SCRAP TEMP REIDENTIFY ٠ FUTURE ORDERS REWORK SCRAP SLRAP TOTAL COST TO COST TO CASTING MATL MACHINING WELDING EST FORECAST CHG CHG. PATT. CHG. TOOLS STD. COST COST \$ 5 HRS PART NO. HRS REFORE AFTER REQUEST ROUTING NAME DATE NAME DATE DEPT NAME DEPT DEPT NAME DATE DEPT DATE ME THUOS QUALITY. NOUTING QUALITY I NGINE ERING ENGR DEPT CONTROL PATT ERECTION 1001 SUPERVISOR SHOP DESIGN FORT SHUP COST OR LIAISON PUNCHASING SUPT SUPT ENGR CHARGE SCRAP AND/OR HE WORK ADDITIONAL OR CLARIFICATION MOTES Exhibit B Page 10 of 11 ENGR. APPRON

Secolar Barrison

12-5-83 FORM 193 REQUEST FOR DRAFTING ACTION 4 REV. 3-79 MINTED IN USA FOR PROCESSING PROCEDURE SEE SA-4 (COOPER-BESSEMER) 55 14 (SUPERIOR) COOPER ENERGY SERVICES JUE OF REQUESTED BY: R.J. ROBSON 10/83 REQUEST NO: DATE: . 281 V-4-C DWG. OR B/M NO: . 71: PIN-PISTON. KSV-4-C NOMENCLATURE . PART NO: \_ 2832 PATT/FORG/DIE NO. MFG. NO. \_ 45° and 1/8 demense A-3) emore CHANGE REQUESTED: add note Break Edge Bath Ends (A-3 A-3 center drill information Evaluated and Approved to satisfy NRC Audit Nonconformances. th an Daul D Danyluk Manager, Engine Engrng. August 23, 1984 centera pling inisla REASON FOR CHANGE impleme cento new eve externa emor Au A01 Irender DISPOSITION OF STOCK - INSTRUCTIONS PROD. INFORMATION ORDERS AFFECTED ISH STOCK ROUGH STOCK PRODUCING ORDERS OPEN MO'S 180. UNIT ASSEMBLY IN PROCESS LIMITED W/O OHG CLOSED MO'S W/G CHO. ROUGH STOCK FINISH STOCK DEVELOPMENT ORDERS MON REWORK W/0 W/0 W/0 USE REP AN SET PERSA NEW IPAN ORDERS PATTERN REWORK SE SEMANS REDENTIFY SCENT REWORK REWORK FUTURE ORDERS .... ALTO. REWORK DIE TEMP. SCENT SCRAP SCRAP SCRAP FORECAST MACHINING WELDING CASTING COST TO COST TO MATL COST PART NO. CHG. CHO. TOOLS CHO. PATT. STO: COST HRS \$ -SEFORE AFTER DATE NAME NAME DEPT DATE OATE DEPT NAME DATE DEPI 950 DEPT. CONTROL OUALITY ENGE WILL WI'L 10/83 TOOL PAIT. ERECTION MATERIALS 14483 UAISON ENGR SUPT COST OR SHOP 11-6.93 CHARGE SCEAP AND/OR SEWORK TO DEP DOIDOHAL OR CLARIFICATION NOTES

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