July 22, 1992
2CANO79210
PROPRIETARY INFORMATION
ENCLOsED
U. S. Nuclear Regulatory Commission

Document Control Desk
Mail Station P1-137
Washington, DC 20555

```
                                    un+1
    Docket No 50-368/31.*
    License No. NPF-6
    Safety Analysis Report
    Amendment No. }1
    Copiee I-102 through I-111
```

Subject: Arkansas Nuclear One - Unit 2

## Gentlemen:

Attached is Amendment No. 10 to the Arkansas Nuclear One Safety Analysis Report. Please update your copies of the subject manual ind indicate receipt of this document by signing b, $^{\prime}$, $w$ and returning this memo to Arkansas Nuclear One, Document Control, at the address indicated below.

Unit 2 SAR Figure 4,2-16, "In-Core Instrument Assembly," is being replaced with a revised drawing considered propri teary by ABB Combustion Engineering. This information is being submitted under IST Affidavit pursuant to 10CFR2. 790 (Attachment 1). Ten copts of this drawing are included in Attachment 2 for manuals $11-102$ through $11-111$. Please add these drawings to the proprietary volume XVI of each Unit 2 SAR.

cc: Mr. James L. Milhoan
U. S. Nuclear Regulatory Commission.

Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064
$\because U$
9207270136920722
FDR ADOCK

```
U. S. NRC
July 22, 1992
Page 2
cc: Mr. James L. Milhoan
U. S. Nuclear Regulatory Cormmlssion
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064
NRC Senior Resident Inspector
Arkansas Nuclear One - ANO-1 & 2
Number 1, Nuclear Plant Road
Russ:`Iville, AR 72801
Mr, Thomas W. Alexion
NRR Project Manager, Region IV/ANO-1
U. S. Nuclear Regulatory Commission
NRR Mail Stop 13-H-3
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852
Ms. Sheri R. Peterson
NRR Project Manager, Region IV/ANO-2
U. S. Nuclear Regulatory Cormission
NRR Mail Stop 13-H-3
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852
```

U, S. NRC
July 22,1942
Page 2

```
NRC Senior Resident Inspector
Arkansas Nuclear one - ANO-1 & 2
Number 1. Nuclear Plant Road
Russellville, AR 72801
Mr. Thomas W. Alexion
NRR Project Manager, Region IV/ANO-1
U. S. Nuclear Regulatory Commission
NRR Mail Stop 13-H-3
One White Flint North
11555 Rockville Pike
Rockville, Maryland 20852
Ms, Sheri R, Peterson
NRR Project Manager, Rec:on IV/ANO-2
U.S. Nuclear Regulatory Commission
NRR Mail Stop 13-H-3
One White Flint North
11555 Rockville Plke
Rockville, Maryland 20852
```


# ATTACHMENT TO ULDATED SAR AMENDMENT NO. 10 <br> <br> FACTLITY OPERATING LTCENSE NOS. DPR-51 AND NPF-6 <br> <br> FACTLITY OPERATING LTCENSE NOS. DPR-51 AND NPF-6 <br> ```DOCKET NOS, 50-313 AND 50-368``` 

This attachment lists replacement and additional pages for the subject SARs which will remain in effect for subsequent versions and modifications, unless specifically altered.

A change is indicated by beginning the affected information with $10 \rightarrow$ and ending the change with +10 . Deletions of entite paragraphs or sections are indicated by $\rightarrow 10+4$. The amendment number is indlcated at the bottom of the affected page near the left margin (10 - Amendment No. 10). Absence of such indicationss on a replacement page means that page was reprinted for word processing purposes only (Amendment No. 10).

Page Replacement Instructions

## Delete

## Replace With

pgs i through xlvi
pgs 1-i through 1-xi
pg 1.1-1
pgs 1.2-1 through 1.2-3
pg 1.3-1
pgs 1,4-1 through 1.4-40
pgs 1.5-1 through $1.5-4$
pg 1.6-1
pgs 1.7-1 through 1.7-4
pg 1,8-1
pg 1.9-1
pgs $1 \cdot 10-1$ through 1.10-31*
pgs i through xliii
pgs 1-1 through 1-xi
pg 1.1-1
pgs 1.2-1 through 1.2-3
pg 1.3-1
pgs 1.4-1 through 1.4-38
pgs 1.5-1 through 1.5-4
pg 1.6-1
pgs 1.7-1 through $1.7-3$
pg 1.8-1
pg 1.2-1
pgs 1.10-1 through $1.10-30$

* Retain Q List Tab before Table 1-2.
figs 1-3 through 1-8
pgs 2-i through $2-x i i i$
pg 2.1-1
pgs 2.2-1 through $2.2-3$
pgs 2.3-1 through 2.3-23
pgs 2.4-1 through 2,4-4
pge 2.5-3 through 2.5-3
pgs 2,6-1 through 2.6-6
pgs 2.7-1 through 2.7-5
pgs 2.8-1 through 2.8-3

```
f1gs 1-3 through 1-8
pgs 2-1 through 2-xi1i
pg 2.1-1
pgs 2.2-1 through 2.2-2
pgs 2.3-1 through 2.3-22
pgs 2,4-1 through 2,4-4
pgs 2.5-1 through 2.5-3
pgs 2,6-1 through 2,6-6
pgs 2.7-1 through 2.7-5
pgs 2.8-1 through 2.8-3
```

pgs 2.9-1. through 2.9-4
pge 2.10-1 through 2.10-68
pgs 3-i through $3-x i v$
pgs 3.1-1 through 3.1-10
pgs 3.2-1 through 3.2-84
pgs 3.3-1 through 3.3-19
pgs 3,4-1 through $3,4-7$
pge 3.5-1 through 3.5-40
---
fig 3-65
fig 3-66
fig 3-67
fig 3-68
pgs 3A-i through $3 A-v i$
pgs 3A-1 through 3A-45
pgs 4-i through 4-xv
pge 4.1-1 through 4.1-10
pgs 4.2-1 through $4 \cdot 2-25$
pgs 4.3-1 through 4,3-31
pgs 4.4-1 through 4.4-12
pge 4.5-1 through 4.5-3
pgs 4.6-1 through 4.6-39
figs 4-1 sh1 and sh2
pgs 5-i through 5-xi
pgs 2.9-1 through 2.9-4
pgs 2.10-1 through $2,10-68$
pgs 3-i through 3-xiv
pgs 3.1-1 through 3.1-9
pgs 3.2-1 through 3.2-87
pgs 3.3-1 through 3,3-18
pgs 3.4-1 through 3,4-6
pgs 3,5-1 through 3,5-43
fig 3-6A
figs $3-65 \mathrm{~A}$ and $3-65 \mathrm{~B}$
figs $3-66 \mathrm{~A}$ and $3-66 \mathrm{~B}$
figs $3-67 \mathrm{~A}$ and $3-67 \mathrm{~B}$
figs $3-68 \mathrm{~A}$ and $3-68 \mathrm{~B}$
pgs 3A-i through 3A-vi
pgs 3A.1-1 " rough 3A, 11-11
and figs $3 A-1$ through $3 A-22$
pgs 4-i through 4-xv
pgs 4.1-1 through 4.1-8
pgs 4.2-1 through 4.2-26
pgs 4.3-1 through 4.3-29
pgs 4.4-1 through 4.4-11
pgs 4.5-1 through 4.5-3
pgs 4.6-1 through 4.6-41
figs $4-1$ sh1 and sh2
pgs 5-i through 5-xi

Delete
pgs 5.1-1 through 5.1-24
pgs 5.2-1 through 5.2-104
pgs 5.3-1 through 5.3-7
pg 5,4-1
pgs 5.5-1 through 5.5-19
fig 5-6
fig 5-6A
fig 5-7 sh1 through sh3
pgs 6-i through 6-x
pgs 6.1-1 through 6.1-14
pgs 6.2-1 through 6.2-7
pgs 6.3-1 through 6.3-4
pgs 6.4-1 through 6.4-2
pgs 6.r-1 through 6.5-4
pgs 6.6-1 through 6.6-7
pgs 6,7-1 through 6,7-21
fig 6-10
pgs 7-i through 7-xv
pgs 7.1-1 through 7,1,-31
pgs 7.2-1 through 7.2-23
pgs 7.3-1 through 7.3-26
pgs 7.4-1 through 7.4-5
pg 7.5-1
pgs 7.6-1 through 7.6-33
fig 7-1

## Replace With

pgs 5.1-1 through 5.1-23
pgs 5.2-1 through 5.2-98
pgs 5.3-1 through 5.3-6
pg 5.4-1
pgs 5.5-1 through 5.5-21
fig 5-6
fig 5-6A
fig 5-7 sh1 through sh3
pgs 6-i through 6-x
pgs 6.1-1 through 6.1-15
pgs 6.2-1 through 6.2-7
pgs 6.3-1 through 5.3-4
pgs 6,4-1 through 6,4-2
pgs 6.5-1 through 6.5-4
pgs 6.6-1 through 6.6-7
pgs 6, 7-1 through 6.7-21
fig 6-10
pgs 7-1 through 7-xvi
pgs 7.1-1 through 7.1-30
pgs 7.2-1 through 7.2-22
pgs 7.3-1 through 7.3-25
pgs 7.4-1 through 7.4-5
pg 7.5-1
pgs 7.6-1 through 7.6-33
fig 7-1

## Delete

fig 7-20 sh1 and sh2
fig 7-21
fig 7-22 sh1 and sh2
fig 7-25
pgs 8-i through 8-viii
pgs 8.1-1 through 8.1-3
pgs 8.2-1 through 8.2-8
pgs 8.3-1 through 8.3-36
pgs 8,4-1 through 8,4-14
fig 8-1
fig 8-3 sh1 through sh4
fig 8-5
pgs 9-1 through 9-xx
pgs 9.1-1 through 9.1-11
pgs 9.2-1 throut $9.2-9$
pgs 9.3-1 through 9.3-17
pgs 9.4-1 through 9.4-7
pgs 9.5-1 through 9.5-6
pge 9.6-1 through 9.6-40
pgs 9.7-1 through 9.7-8
pgs 9.8-1 through 9.8-22
pgs 9.9-1 through 9.9-4
pg 9. 10-1
pg 9.11-1
pg 9.12-1

Replace With
fig 7-20 sh1 and shz
fig 7-2x
fig 7-22 sh1 and sh2
fig 7-25
pgs 8-i through 8-ix
pgs 8.1-1 through 8.1-3
pgs 8.2-1 through 8 2-8
pgs 8.3-1 through 8,3-35
pgs 8,4-1 through 8,4-13
fig $8=1$
fig 8-3 sh1 through sh4
fig 8-5
pgs 9-i through 9-xxiii
pgs 9.1-1 through 9.1-11
pgs 9.2-1 through 9.2-9
pgs 9.3-1 through 9.3-17
pgs 9.4-1 through 9.4-7
pgs 9.5-1 through 9.5-6
pgs 9,6-1 through 9.6-37
pgs 9.7-1 through 9.7-8
pge 9.8-1 through 9.8-22
pgs 9.9-1 through 9.9-4
pg 9.10-1
pg 9.11-1
pg 9.12-1

## Delete

pgs 9.13-1 through 9.13-34 fig 9-1 sh1 through sh3
fig 9-2
fig 9-3 sh1 through sh3
fig 9-4
fig 9-5 sh1 through sh4
fig 9-6
fig 9-7
fig 9-8
fig 9-9
fig 9-10 sh1 p.1d sh2
fig 9-11
fis 9-12
fig 9-13
fig 9-14 shi through sh7
fig 9-16 sh1 through sh5
fig 9-18
fig 9-20
fig 9-34
pgs 9A-1 and 9A-2
pg 9B-1
pg 9C-1

Replace With
pgs 9.13-1 through 9.13-34
fig 9-1 sh1 through sh3
fig 9-2
fig 9-3 sh1 through sh3
fig 9-4
fig 9-5 sh1 through sh4
fig 9-6
fig 9-7
fig 9-8
fig 9-9
fig $9-10$ sh1 and sh2
fig 9-11
fig 9-12
fig 9-13
fig 9-14 sh1 through sh7
fig 9-16 sh1 through sh6
fig 9-18
fig $9-20$
fig 9-34
pgs $9 \mathrm{~A}-1$ and $9 \mathrm{~A}-2$
pg 9B-1
pg 9C-1
pgs 9D-1 through 9D-16
pge $10-1$ through $10-v i 1$
pgs 10.1-1 through $10.1-5$
pge $10,2-1$ and $10,2-2$
pgs 10.3-1 through $10.3-3$
pge 10.4-1 through $10.4=6$
pgs $10.5-1$ through $10.5-4$
fig $10-2$ sh1 through sh6
pgs 11-i through 11-vili
pge 11.1-1 through 11.1-23
pgs 11.2-1 through 11.2-15
pegs 11,3-1 and 11,3-2
pg 11.4-1
pgs 11.5-1 through 11.5-29
fig $11-1$ sh1 through sh3
fig 11-2 sh1 and sh2
fig 11-3
pgs 12-1 through 12-vi
ig 12.1-1
pgs 12.2-1 through $12.2-7$
pg 12.3-1
pg 12.4-1
pgs 12.5-1 through $12.5-4$
pg 12.6-1
pgs 9D-1 through 9D-16
pgs 10-1 through 10-vi1
2gs 10.1-1 through 10.1-5
pg. 10.2-1 and $10,2-2$
pgs 10.3-1 throigh 10.3-3
pgs 10.4-1 through $10.4-6$
pgs 10.5-1 through $10.5-4$
fig 10-2 sh1 through she
pgs 9:-1 through 11-x
pgs 11.1-1 through 11.1-21
pgs 11.2-1 through 11, c-15
pgs 11.3-1 and 11.3-2
pg 11,4-1
pgs 11.5-1 through $11.5-30$
fig "1-1 sh1 through sh3
fig 11-2 sh1 and sh2
fig 11-3
pgs 12-1 through 12-vi
pg 12.1-1
pgs 12.2-1 through $12.2-3$
pg 1.2.3-1
pg 12.4-1
pgs 12.5-1 through $12.5-4$
pg 12.6-1

## Delete

```
pg 12.7-1
pg 12.8-1
pgs 13-1 through 13-v
pgs 13.1-1 through 13.1-7
pgs 13, 2-1 and 13,2-2
pgs 13,3-1 through 13,3-3
pg 13,4-1
pg 13.5-1
pgs 13,6-1 through 13,6-37
pgs 13,7-1 through 13,7-4
pgs 14-i through 14-xvii
pgs 14.1-1 through 14.1-24
pgs 14, 2-1 through 14,2-68
pgs 14.3-1 through 14.3-3
pgs 14.4-1 through 14,4-7
pgs 14.5-1 through 14.5-45
pgs 15-i and 15-ii
pg 15-1
pgs A-1 through A-xi
pgs A-1 through A-44
figs A-2 through A-5
fig A-7A
fig A-8A
fig A-11
```


## Replace with

pg 12.7-1
pg 12, 8-1
pgs 13-1 through $13-\mathrm{v}$
pgs 13.1-1 through 13.1-6
pgs 13.2-1 and 13.2-2
pgs 13, 3-1 through 13,3-3
pg 13.4-1
pg 1.3.5-1
pgs 13.6-1 through 13.6-37
pgs 13, 7-1 through 13.7-4
pgs 14-1 through 14-xvii
pgs 14.1-1 through 14.1-23
pgs 14.2-1 through 14.2-70
pgs 14,3-1 through $14,3-3$
pgs 14, 4-1 through $14,4-7$
pgs 14.5-1 through $14,5-47$
pgs 15-i and 15-ii
pg 15-1
pgs A-i through A-xi
pgis A. 1-1 through A.8-8
figs $A-2$ through A-5
fig $A-7 A$
fig A-8A
fig A-11

## ATTACHMENT 1

AFFIDAVIT FOR ABB COMBUSTION ENGINEERING
DRAWING 310-0101

## AFFIDAVIT PURSUANT

## TO 10 CFR 2.790


#### Abstract

Combustion Engineering, Inc. ) State of Connecticut ) county of Hartford SS.:


I, S. A. Toelle, depose and say that I am the Manager, Nuclear Licensing, of Combustion Engineering, Inc., duly authorized to make this affidavit, and have reviewed or caused to have reviewed the information which is identified as proprictary and referenced in the paragraph immediately below. I am submitting this affidavit in conformance with the provisions of 10 CFR 2.790 of the Commission's regulations in conjunction with Entergy Operations, Inc. for withholding this information.

The information for which proprietary treatment is sought is contained in the following document:

Drawing No. 310-0101 Sheet 1, Rev. 2, "In-Core Instrument issembly," November 6, 1990.

This document has been appropriately designated as proprietary.
I have personal knowledge of the criteria and procedures utilized by Combustion Engineering in designating information as a trade secret, privileged or as confidential commercial of financial information.

Pursuant to the provisions of paragraph (b) (4) of Section 2.790 of the commission's regulations, the following is furnished for consideration by the Commission in determining whether the
information sought to be withheld from public disclosure, included in the above referanced document, should be withheld.

1. The information sought to be withheld from public disclosure, Which is owned and has been held in confidence by combustion Engineering, is the manufacturing drawing of the in-core instrument assembly.
2. The information consists of test data or other similar data concerning a process, method or component, the application of which results in substantial competitive advantage to combustion Engineerirr.
3. The information is of a type customarily held in confidence by Combustion Engineering and not customarily disclosed to the public. Combustion Engineering has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The details of the aforementioned system were provided to the Nuclear Regulatory Commission via letter DP-537 from F. M. Stern to Frank Schroeder dated December 2, 1974. This system was applied in determining that the subject document herein is proprietary.
4. The information is being transmitted to the commission in
confidence under the provisions of 10 CFR 2.790 with the understanding that it is to be received in confidence by the Commission.
5. The information, to the best of my knowledge and belief, is not available in public sources, and any disclosure to third parties has been made pursuant to regulatory provisions or proprietary agreements which provide for maintenance of the information in confidence.
6. Public disclosure of the information is likely to cause substantial harm to the competitive position of combu tion Engineering because:
a. A similar product is manufactured and sold by major pressurized water reactor competitors of Combustion Engineering.
b. Development of this information by C-E required thousands of manhours and hundreds of thousands of dollars. To the best of my knowledge and belief, a competitor would have to undergo similar expense in generating equivalent information.
c. In order to acquire such information, a competitor would also require considerable time and inconvenience to manufacture and qualify the in-core instrument.
d. The information required significant effort and expense to obtain the licensing approvals necessary for application of
the information. Avoidance of this expense would decrease a competitor's cost in applying the information and marketing the product to which the information is applicable.
e. The information consists of the design of the in-core instrument assembly, the application of which provides a competitive economic advantage. The availability of such information to competitors would enable them to modify their product to better compete with combustion Engineering, take marketing or other actions to improve their product's position or impair the position of Combustion Engineering's product, and avoid developing similar data and analyses in support of their processes, methods or apparatus.
f. In pricing Combustion Engineering's products and services, significant research, development, engineering, analytical, manufacturing, licensing, quality assurance and other cos $\$$ and expenses must be included. The ability of combustion Engineering's competitors to utilize such information without similar expenditure of resources may enable them to sell at prices reflecting significantly lowar costs.
g. Use of tie information by competitors in the international marketplace vould increase their ability to market nuclear steam suprly systems by reducing the costs associated with their technology development. In addition, disclosu:e would have an adverse economic impact on combustion

Engineering's potential for obtaining or maintaining foreign incenses.

Further the deponent sayeth not.

$$
\begin{aligned}
& \text { S.A. A. Toelle } \\
& \text { Manager } \\
& \text { Nuclear Licensing }
\end{aligned}
$$

Sworn to before me this ale, day of $\qquad$ , 1992

Cathunie P. De Gantry
Notary Public
My cominission expires: $3 / 31 / 93$

ATTACHMENT 2
UNIT 2 SAR
FIGURE 4.2-16
(10 COPIES)

ATTACHMENT 3 TO UPDATED SAR AMENDMENT NO, 10
FACILITY OPERATING LICENSE NOS. DPR-51 AND NPF-6
DOCKET NOS, $50-313$ AND $50-368$

```
This attachment lists replacement and additional pages for the subject SARs which will remain in effect for subsequen versions and modifications, unless specifically altered.
A change is indicated by beginning the affected information with \(10 \rightarrow\) and ending tia change with +10 . Deletions of entire paragraphs or sections are indlcated by \(\phi \rightarrow 10+\). The amendment number is indicated at the bottom of the affected page near the left margin ( \(\mathbf{1 0}\) - Amendment No. 10). Absence of such indicationss on a replacement page means that page was reptinted for word processing purposes only (Ahendment No. 10).
```


## UNIT 2

## Page Replacement Instructions

Delete
pgs i through ixxi

```
pgs 1-1 through 1-v1
```

pg 1.1-1
pge 1.2-1 through 1.2-12
pgs 1.3-1 through 1.3-7
pg 1.4-1
pgs 1.5-1 through 1.5-6
pgs 1.6-1 and 1.6-2
pg 1.7-1
pg 1.8-1
pgs 1.9-1 through 1.9-27
fig 1.2-1
fig 1.2-4
fig 1.2-6
fig $1.7-1$ sh1 through sh3
fig $1,7-2$ sh1 and sh2
pgs 2-1 through $8-x \times v i$
pgs 2.1-1 through 2.1-17
pgs 2.2-1 through, 2.2-11
pgs 2.3-1 through 2.3-36
pgs 2.4-2 through 2.4-20
pgs 2.5-1 through 2.5-57
pgs 2,6-1 through $2,6-8$

```
pgs i through lxviii
pgs 1=1 through 1-vi1
```

pg 1.1-1
pgs 1.2-1 through 1.2-11
pgs 1.3-1 through 1.3-6
pg 1. 4-1
pgs 1.5-1 through 1.5-6
pgs $1.6-1$ and $1.6-2$
pg 1.7-1
pg 1.8-1
pgs 1.9-1 through 1.9-30
fig 1.2-1
fig 1.2-4
fig 1.2-6
fig 1.7-1 sh1 through sh3
fig $1.7-2$ sh1 and sh2
pys 2-1 through $2-x x y 1$
pgs 2.1-1 through 2.1-17
pgs 2.2-1 through 2.2-10
pgs 2.3-1 through 2.3-33
pgs 2.4-1 through 2.4-19
pgs 2.5-1 through 2.5-54
pgs 2.6-1 through 2.6-8

## Delete

pgs 2.7-1 through 2.7-125
fig 2.4-8
fig 2.5-17
pgs 3-i through $3-x \times x i i i$
pgs 3.1-1 through 3,1-35
pgs 3,2-1 through 3,2-3
pgs 3.3-1 through 3.3-3
pgs 3, 4-1 through 3.4-6
ygs 3.5-1 through 3.5-17
pgs 3.6-1 through 3.6-43
pgs 3.7-1 through 3.7-48
pgs 3.8-1 through $3,8-55$
pgs 3.9-1 through 3.9-28
pgs 3.10-1 through 3.10-2.5
pgs 3.11-1 through 3.11-9
pgs 3.12-1 through $3 \cdot 12-6$
pgs 3.13-1 through 3.13-206 (retain Q-List tab before Table $3.2-6$ )
fig $3 \cdot 2-1$ sh1 and sh2
fig $3,2-2$ shl through sh3
fig $3 \cdot 2-j \operatorname{sh} 1$ and $\operatorname{sh} 2$
fig $3,2-4$ shi through sh4
fig $3 \cdot 2-5$ sh1 and sh2
fig $3 \cdot 2-6$ shl through sh3
fig $3.5-5$

## Replace With

pgs 2, 7-1 through $2,7=125$
fig 2.4-8
fig 2.5-17
pgs 3-i through $3-x \times x v$
pys 3.1-1 through 3.1-33
pgs 3.2-1 through 3.2-3
pgs 3.3-1 through 3.3-3
pgs 3.4-1 through $3.4-5$
pgs 3.5-1 through 3.5-17
pgs 3.6-1 through 3.6-42
pgs 3.7-1 through 3.7-45
pgs 3.8-1 thruugh 3.8~53
pgs 3.9-1 tirough 3.9-26
pgs 3.10-1 through $3 \cdot 10-25$
pgs 3.11-1 through 3.11-9
pgs 3.12-1 through $3.12-6$
pgs 3.13-1 through 3.13-2.07
fig $3,2-1$ sh1 and sh2
fig $3.2-2$ shi through sh3
fig 3.2-3 sh1 and sh2
fig $3,2-3$ shl through sh4
fig $3 \cdot 2-5$ sh1 and sh2
fig $3 \cdot 2-6$ sh1 through sh3
fig $3.5-5$

## Delete

fig 3.5-8A
fig 3.5-9
fig 3,5-10
fig $3.6-3$ sh1 through sh4
fig 3.6-13
fig 3.6-16
fig 3. 6-42
---

- $=$
fig 3.8-28
fis 3.8=31
pgs 4-i through 4-xviii
pgs 4.1-1 through 4.1-4
pgs 4.2-1 through 4.2-82
pgs 4.3-1 through 4.3-33
pgs 4.4-1 through 4.4-36
pgs 4.5-1 through 4.5-11
pys 4.6-1 through 4.6-42
fig 4.2-16
pgs 4A-i through $4 \mathrm{~A}-\mathrm{vi}$
pgs 4A-1 through 4A-55
pgs 5-i through 5-xxii
pge 5, 1-1 and 5,1-2


## Replace With

fig 3.5-8A
fig 3.5-9
fig $3.5=10$
fig $3 \cdot 6-3$ sh1 through sh4
fig 3.6-13
fig 3.6-16
fig 3.6-42
fig 3.6-66
fig 3,6-67
tig 3.6-68
fig $3.8=28$
fig 3.8-31
pgs 4-1 through 4 -xvili
pgs 4.1-1 through 4.1-3
pgs 4.2-1 through 4,2-77
pgs 4.3-1 through 4.3-31
pgs 4,4-1 through 4,4-34
pgs 4.5-1 through 4.5-10
pgs 4,6-1 through 4.5-42
fig 4.2-16
fig 4.2-18A
pgs 4A-i through $4 A-v i i$
pgs 4A.1-1 through 4A,15-20
and figs $4 \mathrm{~A}-1$ through $4 \mathrm{~A}-13$
pgs 5-i through $5-x \times i i$
pgs 5,1-1 and 5,1-2

## Delete

pgs 5.2.1 through 5.2-62
pgs 5.3-1 through 5.3-5
pgs 5.4-1 through 5.4-7
pgs 5.5-1 through 5.5-31
pgs 5,6-1 through 5,6-7
pg 5.7-1
pgs 5.8-1 through 5.8-54
fig $5.1-3$ sh1 and sh2
fig 5.5-2 sh1
pgs 6-i through 6-xxxii
pgs 6,1-1 and $6,1-2$
pgs 6.2-1 through 6.2-91
pgs 6.3-1 through 6.3-51
pgs 6, 4-1 and 6, 4-2
pgs 6.5-1 through 6.5-8
pgs 6.6-1 through 6.6-7
pgs 6,7-1 through 6,7-140
fig 6.2-17 sh1 and sh2
fig $6,3=2$
fig 6.5-1
pgs 7-1 through 7-xxx
pgs 7.1-1 through 7.1-10
pgs 7.2-1 through 7.2-147
pgs 7.3-1 through 7.4-1
pgs 7.4-2 through 7.4-11

## Replace With

pgs 5.2-1 through 5.2-58
pgs 5.3-1 through 5.3-4
pgs 5, 4-1 through 5.4-6
pgs 5.5-1 through 5 5-30
pgs 5.6-1 through 5,6-7
pg 5.7-1
pgs 5, 8-1 through 5.8-54
fig 5.1-3 sh1 and sh2
fig 5.5-2 sh1
pgs 6-i through 6-xxxii
pge 6,1-1 and 6.1-2
pgs 6.2-1 through 6.2-89
pgs 6.3-1 through 6.3-49
pgs $6,4-1$ and 6,4-2
pgs 6.5-1 through 6.5-8
pgs 6.6-1 through 6.6-6
pgs 6, 7-1 through 6.7-130
fig 6.2-17 sh1 and sh2
fig 6.3-2
fig 6.5-1
pgs 7-i through 7-xxxiii
pgs 7.1-1 through 7.1-10
pgs 7.2-1 through 7.2-146
pgs 7.3-1 through 7.3-31
pge 7.4-1 through 7, 4-10

Delete
pgs 7.5-1 through 7.5-12
pgs 7.6-1 through 7.6-20
pge 7.7-1 through 7.7-25
pgs 7.8-1 through 7.8-302
fig 7.2-6
fig 7.2-7
fig 7,2-13
fig 7.2-17
figs 7.2-17A through
7.2-17C
fig 7, 2-1s
fig 7.2-20
MEA diagram \#1
FMEA diagram \#5
FMEA diagram \#6
figs 7 3-2A and 7.3-20
fig 7.3-7 sh 3
fig 7.3-9 sh1 ( $\mathbf{M}-2401$ )
fig 7.3-10 sh1, sh2, sh4
fig 7.3-11
fig 7.3-12 shi through sh3
fig 7.4-1 sh8
fig 7.4-2 sh1, sh2, sh4, sh5
fig 7.4-3

## Replace With

pgs 7.5-1 through 7.5-11
pgs 7,5-1 through 7,6-19
pgs 7.7-1 through 7.7-26
pgs 7.8-1 through 7.8-300
fig 7.2-6
fig 7.2-7
fig 7.2-13
fig 7.2-17
figs 7.2-17A through
. 2-17C
fig 7.2-18
fig 7.2-20
FMEA diagram \#1
MEA diagram \#5
F' EA diagram \#6
figs $7.3-2 \mathrm{~A}$ and $7.3-2 \mathrm{~B}$
fig 7.3-7 sh3
fig 7.3-9 shi (M-2401)
fig $7.3-1 \mathrm{u}$ sh1, $\operatorname{sh} 2, \operatorname{sh} 4$
fig 7.3-11
fig 7.3-12 sh1 through sh3
fig 7.3-12 sh4
fig 7.4-1 sh8
fig 7.4-2 sh1, sh2, sh $4, \operatorname{sh} 5$
fig 7,4-3

Delete

```
fig 7,6-1
fig 7,6-2 sh1 and sh2
fig 7.7-1
pgs 8-i through 8-xvii
pgs 8.1-1 through 8.1-4
pgs 8.2-1 through 8.2-10
pgs 8,3-1 through 8.3-93
0gs 8,4-1 through 8,4-22
fig 8.3-1
fig 8.3-2
figs 8,3-4 through 8,3-6
figs 8.3-8 through 8.3-16
fig 8,3-17 sh2
fig 8.3-18 sh1 and sh2
fig 8,3-18 sh4 through sh9
fig 8,3-19 sh2
fig 8.3-22
fig 8.3-24
fig 8.3-25
fig 8,3-27 sh2
fig 8,3-30 sh1 and sh2
fig 8.3-33
fig 8.3-34
    fig 8.3-35 sh2
    fig 8.3-38 sh2
```

Replace With
fig 7.6-1
fig $7,6-2$ sh1 and sh2
fig 7.7-1
pgs 8-i through $8-\alpha \times V$
pgs 8.1-1 through 8,1-4
pgs 8.2-1 through 8.2-9
pgs 8.3-1 through 8,3-89
pgs 8,4-1 through 8.4-25
fig 8.3-1
fig 8.3-2
figs 8.3-4 through 8.3-6
figs $8 \cdot 3-8$ through $8 \cdot 3-16$
fig $8,3-17$ sh2
fig $8 \cdot 3-18$ sh1 and sh2
fig 8.3-18 sh4 through sh9
fig $8 \cdot 3-19$ sh2 8. 3-22
$1-y 8 \cdot 3-24$
fig 8.3-25
fig 8.3-27 sh2
fig $8 \cdot 3-30$ sh1 and sh2
Fig 8.3-33
fig 8.3-34
fig $8 \cdot 3-35$ sh 2
fig 8.3-38 sh2

Delete
fig $8.3-42$
fig $8,3-43$
fig 8.3-44 sh2
figs 8, 3-45 through 8.3-47
fiq 8.3-49 sh1
fig 8.3-51 sh2
fig $8 \cdot 3-52$ sh 3
fig 8.3-53 sh1
fig 8.3-55
fig $8,3-57$
figs 8.3-59 through 8.3-67
figs 8.3-69 through 8.3-71
figs 8.3-74 through 8.3-77
fig 8.3-79
fig 8.3-108 sh1
fig 8.3-108 sh2 through sh9
pgs 9-i through 9-xyix
pgs 9.1-1 through 9.1-51
pgs 9.2-1 through 9.2-35
pgs 2.3-1 through 9.3-44
pgs 9.4-1 through 9.4-49
pgs 9.5-1 through 9.5-47
pg 9.6-1
pgs 9.7-1 through 9.7-1
pgs 9.7-13 through 9.7-169

Replace With
fig $8.3=42$
fig 8.3-43
fig 8.3-44 sh2
figs 8,3-45 through 8,3-47
fig 8, 3-49 sh1
fig $8,3-51 \operatorname{sh} 2$
fig $8 \cdot 3-52 \operatorname{sh} 3$
fig 8.3-53 sh1
fig 8.3-55
fig 8.3-57
figs 8.3-59 through 8.3-67
figs 8.3-69 through 8,3-71
figs 8.3-74 through 8.3-7?
fig 8.3-79
fig 8.3-108 sh1
pgs 9-i through 9-xxxvi
pgs 9.1-1 through 9.1-48
pgs 9.2~1 through 9.2-35
pgs 9.3-1 through 9.3-43
pgs 9.4-1 through 9.4-46
pgs 9.5-1 through 9.5-46
pg 9.6-1
pgs 9.7-1 through 9.7-11
pgs 9.7-13 through 9.7-173


## Delete

```
fig 9.1-1
fig 9.2-1 shl through sh3
(M-2210) (ig) sh3
fig 9.2-1 (M-2211)
fig 9.2-7 sh1 through sh5
(M-2212)
fig 9.2-7 sh1 (M-2225)
fig 9.3-1 sh1 through sh5
fig 9.3-2 shl through sh6
fig 9.3-3 sh1 through sh6
ig 9.3-4 sh1 and sh2
fig 9.4-1 sh1 through sh6
fig 9.4-2 sh1 through sh3
fig 9.4-3 shl th*OL,.1 sh3
fig 9,4-4 sh1 t.rough sh3
fig 9.5-1 sh1 through sh7
figs 9.5-2 through 9.5-7
fig 9.5-8 sh1 through sh3
pg 9C-1
```


## Replace With

## fig 9.1-1

fig 9.i-1 shl through sh3 (M-2210)
fig 9.2-1 (M-2211)
fig $9.2-6$ sh1 and sh2
fig $9.2-7$ sh1 through shs (M-2212)
fig 9.2-7 sh1 (M-2225)
fig 9.3-1 sh1 through sh5
fig 9.3-2 sh1 through eh6
fig 9,3-3 sh1 through sh6
fig 9.3-1 sh1 and sh2
flg 9.4-i sh1 through sh6
fisf 9.4-2 sh1 through sh3
fig $2,4-3$ sh1 through sh3
fig $9,4-4$ sh1 through sh3
rig 9.5-1 sh1 through sh7
fige S.5-2 through 9.5-7
IIg $9,5-8$ shl through $\operatorname{sh} 3$
pgs 9A-1 and 9A-2
pg 9B-1
pg 9C-1


## Delete

pgs 9D-1 through 9D-12 pgs 10-1 through $10-x i 1$ pg 10.1-1

```
pgs 10.2-1 through 10, 2-10
```

pgs 10.3-1 t' rough 10.3-9
pgs $10,4-1$ through $10,4-42$
pgs 10.5-1 through $10.5-23$
fig $10,2-3$ sh1 and sh2
fig $10,2-4$ sh1 through sh4
fig $10.2-5$ sh1 and sh2
fig $10.5-1$
fig $10,4-2$ shl through shs
fig $10.4-3$ sh1 through $\operatorname{sh} 4$
fig $10.4-5$
ig 10.4-7
pgs 11-i through 11-xiii
pgs $11,1-1$ through $11,1-11$
pys 11. 2-1 through $11,2-20$
pgs 11.3-1 through 11.3-24
pgs 11, 4-1 through 11, 4-14
pgs 11.5-1 through $11.5-4$
pgs $11.6-1$ through $11.6-5$
pgs 11. 7-1 through 11.7-3
pgs 11.8-1 through 11.8-102
fig 11.2-1 sh1 through sh8

## Replace WiLh

pgs 9D-1 through 9D-14
pgs 10-1 through $10-x v$
pg 10.1-1
pgs 10.2-1 through 10.2-9
pgs 10.3-1 through 10.3-8
pgs 10, 4-1 through $10,4-43$
Fg's $10.5-1$ through $10.5-28$
fig $10,2-3$ sh1 and $\operatorname{sh} 2$
fig $10,2-4$ sh1 through sh 4
fig $10.2-5$ sh 1 and $\sin 2$
fig 10,4-1
fig $10,4-2$ sh1 through $\operatorname{sh} 5$
fig 10.4-3 sh1 through sh4
fiz $10.4-5$
fig 10.4-7
pgs $11-1$ through 11 -xiv
pgs 11.1-1 through 11.1-11
pgs $11,2-1$ through $11,2-18$
pgs 11.3-1 through 11.3-23
pgs 11, 4-1 through 11.4-13
pgs 11. 5-1 through 11.5-4
pgs $11,6-1$ through $11 \cdot 6-5$
pge 11.7-1 through 11.7-3
pgs 11.8-1 through 11.8-103
fig 11. 2-1 sh1 through sh8

## Delete

fig $11.2-2$ shi through sh3 fig 11,2-3 shi through sh3 f4, 11.3-1
f1g 11.5-1
pge 12-1 through 12-vii
pgs 12,1-1 through 12,1-17
pgs 12.2-1 through 12.2-8
pge 12.3-1 through 12.3-6
pgs 12, 4-1 and 12,4-2
pge $12,5-1$ and $12,5-2$
pys 12,6 . , through $12,6-16$
ftg $12.1=13$
pgs 13-i through $1^{-2}-\mathrm{vi}$
pge 13,1-1 and $13,1-2$
pgs 13.2-1 through 13.2-8
pg 13.3-1
pg 13.4-1
pgs 13, 5-1 through 13,5-4
pg 13, 6-1
pg 13, 7-1
F3 13.8-1
pgs 14-1 through 14 -vii
pgs $14,1-1$ thr 3 h $14,1-12$
pge 14, 2-1 thy 3h 14,2-3
pgs 14, 1-1 through 14,3-131

## Replace With

fig 11.2-2 sh1 through sh3
fig 11,2-3 sh1 through sh3
f4e 11.3-1
fig 11.5-1
pgs 12-1 through $12-\mathrm{vi1}$
pgs 12.1-1 through 12,1-16
pge 12, 2-1 through 12, 2-9
pgs 12,3-1 through 12,3-6
pgs $12,4=1$ and $12,4=2$
pgs $12,5-1$ and $12,5-2$
pgs 12, 6=1 through $12,6-16$
fig 12.1-13
pgs 13-1 through 13-vi
pgs 13,1-1 and 13,1-2
pge 13, 2-1 through $13,2 \div 3$
pg 13.3-1
pg 1, A-1
pgs 13,5-1 through 13,5-4
po 13.6-1
pg 13.7-1
pg 13,8-1
pgs 14-1 thyough 14 -vi1
pys 14.1-1 through 14.1-12
pgs 14:2-1 through 14,2=3
pge 14, 3-1 through 14, 7-131

## Delete

pge 15-i through $15-x \times x i$
pgs 15.1-1 through 15.1-100
pge 15, 2-1 through 15, 2=3
pgs 15,3-1 through 15.3-84
pgs $16=4$ and $16=11$
pg 16-1
pge 17-4 and 17-11
pg 17-1

## Replace With

pgs 15-i through $15=\mathrm{xxx}$
pgs 15.1 through 15.1-93
pge 15.2-1 through 15,2-3
pgs 15.3-1 through 15.3-85
pgs 16-i and $16-1 i$
pg 16-1
pgs 17-1 and 17-11
pg 17.1-1

Add the following figure to proprietary volume XVI (1imited manual holders):

