

✓ ED  
Revised  
Comment  
May 20th  
H. Shuman

ISTITUTO DI RICERCHE FARMACOLOGICHE "MARIO NEGRI,"

FONDAZIONE PER RICERCHE ERETTE  
IN ENTE MORALE CON D. P. R. 361  
DEL 5 APRILE 1961 - REG. PERSONE  
GIUR. TRIB. MILANO N. 162, VOL. 5  
CONTO CORRENTE POST. N° 3/59071

RECOGNIZED AS A TAX EXEMPT  
ORGANIZATION UNDER SECTION 501  
(c) (3) OF THE UNITED STATES OF  
AMERICA INTERNAL REVENUE CODE

CONFIDENTIAL

ETHYLENE DICHLORIDE

Report on the clinical chemistry results after 6 months  
inhalatory exposure

Second Report

Milan, December 1976

20157 MILANO - Via Eritrea, 62 - Tel. 35.54.546 - 35.70.546  
Telex 37268 NEGRINST

SL 083145

The following is the description of the clinical chemistry data obtained after 6 months exposure of rats to inhalatory Ethylene Dichloride (ECD). As detailed in a previous report, animals (Sprague Dawley rats of both sexes) have been treated by Dr. Maltoni (Microbiological Institute, Bologna, Italy) according to his protocols of exposure and employing 4 levels of ECD exposure, i.e. : 250, 50, 10 and 5 ppm, whereas controls, caged in equal conditions, breathed only air. Blood samples were obtained by heart puncture of ether-anesthetized animals; urine samples were collected in the week preceding sacrifice by placing the animals in metabolic cages in the 'off' exposure hours. All samples were coded and analysed blindly, the code being broken after termination of all analyses.

Animal nos. 811-818 correspond to female controls (group C) and nos. 854-861 to male controls; rats nos. 9-16 correspond to females and nos. 54-61 to males exposed to 250 and later to 150 ppm (hereafter group 4) (cfr. Maltoni's protocol). Rats nos. 209-216 correspond to females and nos. 254-261 to males exposed to 50 ppm ECD (group 3); nos. 409-416 were females and nos. 454-462 to males exposed to 10 ppm ECD (group 2) whereas nos. 609-616 were female rats and nos. 654-651 were male rats exposed for 6 months to 5 ppm ECD (Group 1).

Details of the techniques employed for the various tests were presented in a former report to which we refer. Statistical significance at the  $p < 0.05$  level of the data was assessed by means of Duncan's multiple range test.

Results obtained can be summarized as follows:

BUN - (Table 1 and 2). In female rats, a significant decrease in mean BUN levels in respect to controls was found in groups 1,2 and 3 , i.e. those exposed to the lower ECD levels, whereas in males a significant decrease was present only in group 1 although a tendency towards a decrease was present also in groups 2 and 3. No changes were found in groups 4 (i.e. 250 ppm later to 150 ppm) in either sex. The biological significance of this type of results is probably doubtful.

Serum Glucose - (Tables 3,4). No significant differences in respect to controls were found either in males or females exposed to ECD at any dosage level.

Serum bilirubin - (Tables 5,6) . No statistically significant differences were found in both sexes between control and exposed rats, although a tendency towards a dose-related increase was present , more evident in females.

Serum total proteins - (Tables 7,8). No statistically significant differences were found between control and exposed rats of either sex.

Serum albumin - (Tables 9 , 10). No statistically significant differences were found between control and ECD-exposed rats of either sex.

Serum GOT-levels - (Tables 11,12). No statistically significant differences were found between control and exposed rats of either sex.

Serum LDH - (Tables 13,14) . In female rats a tendency toward an increase in levels was present in all exposed groups, this increase showing however no dose relationship and reaching statistical significance only in group 3. Levels were slightly elevated in comparison to controls also in ECD-exposed males, again however no clear dose-response relationship was present and in no group the difference reached statistical significance.

Serum cholesterol - (Tables 15,16). In female exposed rats the values were superimposable to those of controls; in males a slight tendency towards an increase was seen in all groups, higher in groups 1 and 2 (i.e. ECD levels of 5 and 10 ppm respectively). However no statistical significance was reached in any group.

Uric acid serum levels - (Tables 17,18). In both males and female a tendency towards an increase in levels was observed which did not show a clear dose-relationship in males nor reached statistical significance in either sex or group.

Alkaline phosphatase - (Tables 19,20). In females a tendency towards a decrease showing a roughly inverse dose-relationship was present but the differences did not reach statistical significance in any group. In male rats, the values were very scattered with a profound decrease in group 1 (ECD 5 ppm) and lower decreases in groups 2 and 4; no differences with controls were seen in group 3.

Albumin percent levels - (Tables 21,22) . No statistically significant differences were found either in females or males.

Alpha-1 globulins - (Tables 23,24). No statistically significant differences were found between controls and exposed rats.

Alpha-2 globulins - (Tables 25,27). A tendency towards a dose-related increase was seen in females not reaching statistical significance. In males a not significant increase was seen only in groups 2 and 4.

Beta globulins - (Tables 27,28) No significant differences were seen.

Gamma globulins - (Tables 29,30) No differences in females; a slight , not significant, not dose-related tendency towards an increase in male rats.

Na<sup>+</sup>, K<sup>+</sup>, Ca<sup>++</sup>, Cl<sup>-</sup>, inorganic P - (Tables 31-40) No statistically significant differences were observed.

Leukocyte numbers - (Tables 41 42). A slight, not significant decrease was seen in group 4 animals both males and females; a higher decrease was however present in group 1 of male rats.

Hematocrit - (Tables 43,44). No significant differences in either sex , the tendency towards an increase (not dose related, not significant) present in females being absent in males.

Hemoglobin content (Tables 45,46). No significant differences.

Erythrocytes numbers - (tables 47,48) . No significant differences.

Mean erythrocyte volume - (Tables 49,50). A tendency towards a decrease (not significant; not dose-related) was found in males.

Platelet number (Tables 51,52). No differences in females, a tendency (not statistically significant) towards a decrease in male rats exposed to 250-150 ppm ECD was on the other hand seen.

Basophilic and eosinophilic leukocytes - (Tables 53-56). No significant differences.

Segmented and non segmented neutrophilic leukocytes (Tables 57-60). Contrasting tendencies between males and females exposed to ECD, in any case no significant differences were detected. No differences for non-segmented neutrophils .

Lymphocytes (Tables 61, 62) . A slight, not dose-related, not significant decrease in females, the opposite in males again not significant.

Monocytes - (Tables 63,64). No significant differences.

Urinary erythrocytes and glucose - (Tables 65,66;69,70).

No significant differences.

Urinary albumin - (Tables 67,68). A tendency towards an increase in animals exposed to the higher ECD dose (250-150 ppm) was seen; the semi-quantitative assay does not permit statistical analysis.

Urinary ketones, bilirubin, casts (Tables 71,76). No differences between exposed and controls.

Urinary leukocytes, crystals, mucus, epithelial cells and microorganisms (Tables 77-86).

No obvious differences between exposed and ECD-exposed animals could be detected.

COMMENT :

On the basis of the data so far obtained, the ECD treatments employed would seem to be reasonably tolerated by the animals.

Although changes in some of the parameters investigated (LDH, SGOT, Cholesterol, Bilirubin, Uric acid levels) were seen, in no case these differences reached statistical significance nor was a dose-response relationship clearly evident; accordingly the biological significance of these results for a possible involvement of the liver and the kidneys, is at the moment very uncertain.

TABLE 1 - BUN values in control and ECD-exposed in female rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 811     | 20  | 609     | 15  | 409     | 16  | 209     | 15  | 9       | 21  |
| 812     | 23  | 610     | 15  | 410     | 15  | 210     | 12  | 10      | 20  |
| 813     | 16  | 611     | 13  | 411     | 15  | 211     | 16  | 11      | 18  |
| 814     | 23  | 612     | 12  | 412     | 15  | 212     | 12  | 12      | 20  |
| 815     | 25  | 613     | 12  | 413     | 16  | 213     | 17  | 13      | 17  |
| 816     | 11  | 614     | 18  | 414     | 15  | 214     | 22  | 14      | 18  |
| 817     | 21  | 615     | 14  | 415     | 11  | 215     | 16  | 15      | 20  |
| 818     | 18  | 616     | 9   | 416     | 17  | 216     | 16  | 16      | 16  |

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| $\bar{X}$ | 19.62 | 13.50 | 15.00 | 15.75 | 18.75 |
| S.E.      | 1.60  | 0.94  | 0.62  | 1.11  | 0.62  |

Statistical analysis :  
 Group C vs 1 :  $p < 0.001$   
 " C vs 2 :  $p < 0.005$   
 " C vs 3 :  $p < 0.05$   
 " 1 vs 4 :  $p < 0.005$   
 " 2 vs 4 :  $p < 0.05$

SL 083152

TABLE 2 - BUN values in control and ECD-exposed male rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 854     | 19  | 654     | 10  | 454     | 25  | 254     | 15  | 54      | 15  |
| 855     | 18  | 655     | 14  | 455     | 12  | 255     | 16  | 55      | 19  |
| 856     | 19  | 656     | 14  | 456     | 14  | 256     | 15  | 56      | 22  |
| 857     | 15  | 657     | 12  | 457     | 16  | 257     | 16  | 57      | 18  |
| 858     | 17  | 658     | 10  | 458     | 17  | 258     | 13  | 58      | 15  |
| 859     | 15  | 659     | 12  | 459     | 16  | 259     | 17  | 59      | 18  |
| 860     | 20  | 660     | 9   | 461     | 13  | 260     | 17  | 60      | 16  |
| 861     | 21  | 661     | 13  | 462     | 14  | 261     | 19  | 61      | 17  |

$\bar{X}$   
S.E.

18.00  
0.78

11.75  
0.67

15.87  
1.43

16.00  
0.63

17.50  
0.82

Statistical analysis : Group C vs 1 :  $p < 0.001$   
                                   " 1 vs 2 :  $p < 0.05$   
                                   " 1 vs 3 :  $p < 0.05$

SL 083153

TABLE 3 - Serum glucose in control and ECD exposed female rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 811     | 90  | 609     | 95  | 409     | 130 | 209     | 115 | 9       | 115 |
| 812     | 95  | 610     | 80  | 410     | 105 | 210     | 85  | 10      | 85  |
| 813     | 75  | 611     | 105 | 411     | 105 | 211     | 110 | 11      | 95  |
| 814     | 110 | 612     | 145 | 412     | 90  | 212     | 115 | 12      | 125 |
| 815     | 80  | 613     | 75  | 413     | 80  | 213     | 85  | 13      | 100 |
| 816     | 60  | 614     | 85  | 414     | 85  | 214     | 100 | 14      | 95  |
| 817     | 100 | 615     | 95  | 415     | 90  | 215     | 140 | 15      | 100 |
| 818     | 125 | 616     | 125 | 416     | 120 | 216     | 95  | 16      | 80  |

|           |       |        |        |        |       |
|-----------|-------|--------|--------|--------|-------|
| $\bar{X}$ | 91.87 | 100.00 | 101.25 | 105.60 | 99.37 |
| E.        | 7.25  | 8.18   | 6.53   | 6.51   | 5.21  |

No statistically significant differences were found between any group.

SL 083154

TABLE 3 - Serum glucose in control and ECD exposed female rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 811     | 90  | 609     | 95  | 409     | 130 | 209     | 115 | 9       | 115 |
| 812     | 95  | 610     | 80  | 410     | 105 | 210     | 85  | 10      | 85  |
| 813     | 75  | 611     | 105 | 411     | 105 | 211     | 110 | 11      | 95  |
| 814     | 110 | 612     | 145 | 412     | 90  | 212     | 115 | 12      | 125 |
| 815     | 80  | 613     | 75  | 413     | 80  | 213     | 85  | 13      | 100 |
| 816     | 60  | 614     | 85  | 414     | 85  | 214     | 100 | 14      | 95  |
| 817     | 100 | 615     | 95  | 415     | 90  | 215     | 140 | 15      | 100 |
| 818     | 125 | 616     | 125 | 416     | 120 | 216     | 95  | 16      | 80  |

|           |       |        |        |        |       |
|-----------|-------|--------|--------|--------|-------|
| $\bar{X}$ | 91.87 | 100.00 | 101.25 | 105.60 | 99.37 |
| .E.       | 7.25  | 8.18   | 6.53   | 6.51   | 5.21  |

No statistically significant differences were found between any group.

TABLE 4 - Serum glucose in control and ECD-exposed male rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 854     | 80  | 654     | 150 | 454     | 150 | 254     | 100 | 54      | 90  |
| 855     | 90  | 655     | 115 | 455     | 125 | 255     | 80  | 55      | 105 |
| 856     | 65  | 656     | 120 | 456     | 75  | 256     | 85  | 56      | 105 |
| 857     | 95  | 657     | 115 | 457     | 85  | 257     | 75  | 57      | 95  |
| 858     | 75  | 658     | 115 | 458     | 95  | 258     | 65  | 58      | 90  |
| 859     | 100 | 659     | 125 | 459     | 90  | 259     | 105 | 59      | 90  |
| 860     | 100 | 660     | 135 | 461     | 120 | 260     | 90  | 60      | 90  |
| 861     | 120 | 661     | 125 | 462     | 110 | 261     | 135 | 61      | 135 |

|           |       |        |        |       |        |
|-----------|-------|--------|--------|-------|--------|
| $\bar{X}$ | 90.62 | 112.00 | 106.25 | 91.87 | 100.00 |
| S.E.      | 6.08  | 14.85  | 8.75   | 7.67  | 5.51   |

No statistically significant differences were found between any group.

TABLE 5 - Serum bilirubin levels in control and ECD-exposed female rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 811     | 0.7 | 609     | 0.8 | 409     | 1.2 | 209     | 1.4 | 9       | 1.7 |
| 812     | 1.4 | 610     | 1.1 | 410     | 1.0 | 210     | 0.5 | 10      | 0.9 |
| 813     | 1.1 | 611     | 1.0 | 411     | 1.7 | 211     | 1.2 | 11      | 1.0 |
| 814     | 0.6 | 612     | 1.0 | 412     | 1.5 | 212     | 0.6 | 12      | 1.2 |
| 815     | 0.6 | 613     | 0.7 | 413     | 1.4 | 213     | 1.2 | 13      | 1.5 |
| 816     | 0.5 | 614     | 1.1 | 414     | 0.7 | 214     | 1.5 | 14      | 1.4 |
| 817     | 0.9 | 615     | 0.8 | 415     | 0.9 | 215     | 1.0 | 15      | 1.5 |
| 818     | 1.2 | 616     | 1.1 | 416     | 0.8 | 216     | 1.5 | 16      | 1.0 |

$\bar{X}$  0.875  
S.E. 0.11

0.95  
0.057

1.15  
0.12

1.11  
0.13

1.275  
0.10

No statistically significant differences were found between any group.

SL 083157

TABLE 6 - Serum bilirubin levels in control and ECD-exposed male rats

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 854     | 0.9 | 654     | 0.7 | 454     | 1.1 | 254     | 1.3 | 54      | 2.0 |
| 855     | 1.2 | 655     | 3.1 | 455     | 1.3 | 255     | 1.2 | 55      | 1.1 |
| 856     | 0.6 | 656     | 0.6 | 456     | 1.7 | 256     | 0.4 | 56      | 1.2 |
| 857     | 0.9 | 657     | 0.6 | 457     | 0.7 | 257     | 0.6 | 57      | 1.3 |
| 858     | 1.6 | 658     | 0.8 | 458     | 1.4 | 258     | 0.4 | 58      | 0.8 |
| 859     | 0.4 | 659     | 1.2 | 459     | 1.4 | 259     | 0.9 | 59      | 1.7 |
| 860     | 0.7 | 660     | 1.0 | 461     | 1.1 | 260     | 1.1 | 60      | 0.6 |
| 861     | 0.8 | 661     | 1.0 | 462     | 1.3 | 261     | 1.2 | 61      | 1.8 |

|      |      |      |      |      |      |
|------|------|------|------|------|------|
| IX   | 0.88 | 0.82 | 1.25 | 0.88 | 1.31 |
| S.E. | 0.13 | 0.29 | 0.10 | 0.13 | 0.17 |

No statistically significant differences were found between any group.

SL 083158

TABLE 7 - Serum total protein levels in control and ECD-exposed female rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | g%  | Rat No. | g%  | Rat No. | g%  | Rat No. | g%  | Rat No. | g%  |
| 811     | 7.6 | 609     | 7.3 | 409     | 6.7 | 209     | 6.2 | 9       | 8.1 |
| 812     | 7.0 | 610     | 7.2 | 410     | 6.6 | 210     | 6.5 | 10      | 6.7 |
| 813     | 7.1 | 611     | 6.6 | 411     | 7.0 | 211     | 7.2 | 11      | 7.3 |
| 814     | 6.6 | 612     | 6.4 | 412     | 7.7 | 212     | 7.9 | 12      | 7.5 |
| 815     | 7.0 | 613     | 5.5 | 413     | 7.9 | 213     | 7.5 | 13      | 7.8 |
| 816     | 5.8 | 614     | 7.5 | 414     | 7.6 | 214     | 8.5 | 14      | 7.3 |
| 817     | 8.3 | 615     | 7.2 | 415     | 5.6 | 215     | 7.5 | 15      | 8.4 |
| 818     | 7.0 | 616     | 6.8 | 416     | 7.2 | 216     | 7.6 | 16      | 7.3 |

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| $\bar{X}$ | 7.05 | 6.81 | 7.03 | 7.36 | 7.55 |
| S.E.      | 0.25 | 0.23 | 0.26 | 0.26 | 0.19 |

No statistically significant differences were found between any group.

TABLE 8 - Serum total protein levels in control and ECD-exposed male rats

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | g%  | Rat No. | g%  | Rat No. | g%  | Rat No. | g%  | Rat No. | g%  |
| 854     | 6.5 | 654     | 5.8 | 454     | 7.9 | 254     | 6.7 | 54      | 6.9 |
| 855     | 6.5 | 655     | 7.5 | 455     | 6.8 | 255     | 7.0 | 55      | 6.5 |
| 856     | 6.2 | 656     | 6.3 | 456     | 6.5 | 256     | 6.7 | 56      | 7.0 |
| 857     | 6.2 | 657     | 6.3 | 457     | 6.4 | 257     | 7.3 | 57      | 7.0 |
| 858     | 7.5 | 658     | 5.9 | 458     | 7.4 | 258     | 6.0 | 58      | 7.3 |
| 859     | 6.5 | 659     | 5.9 | 459     | 7.0 | 259     | 6.0 | 59      | 7.0 |
| 860     | 6.9 | 660     | 6.3 | 461     | 7.1 | 260     | 7.3 | 60      | 6.3 |
| 861     | 7.5 | 661     | 7.0 | 462     | 6.7 | 261     | 7.4 | 61      | 6.9 |

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| $\bar{X}$ | 6.72 | 6.40 | 6.97 | 6.80 | 6.86 |
| S.E.      | 0.18 | 0.21 | 0.17 | 0.20 | 0.11 |

No statistically significant differences were found between any group.

TABLE 9 - Serum albumin levels in control and ECD-exposed female rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | g%  | Rat No. | g%  | Rat No. | g%  | Rat No. | g%  | Rat No. | g%  |
| 811     | 3.6 | 609     | 3.2 | 409     | 3.2 | 209     | 2.8 | 9       | 4.1 |
| 812     | 3.3 | 610     | 3.3 | 410     | 2.7 | 210     | 3.1 | 10      | 2.7 |
| 813     | 3.2 | 611     | 3.0 | 411     | 3.3 | 211     | 3.2 | 11      | 3.7 |
| 814     | 2.9 | 612     | 2.9 | 412     | 3.6 | 212     | 3.7 | 12      | 3.4 |
| 815     | 3.5 | 613     | 2.0 | 413     | 3.8 | 213     | 3.2 | 13      | 3.6 |
| 816     | 2.2 | 614     | 3.7 | 414     | 3.3 | 214     | 3.9 | 14      | 3.1 |
| 817     | 3.9 | 615     | 3.5 | 415     | 2.6 | 215     | 4.0 | 15      | 3.7 |
| 818     | 3.2 | 616     | 3.7 | 416     | 3.4 | 216     | 3.8 | 16      | 3.2 |

|           |       |      |      |      |       |
|-----------|-------|------|------|------|-------|
| $\bar{X}$ | 3.225 | 3.16 | 3.23 | 3.46 | 3.437 |
| S.E.      | 0.18  | 0.19 | 0.14 | 0.16 | 0.15  |

No statistically differences were found between any group.

TABLE 10 - Serum albumin levels in control and ECD-exposed male rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | g%  | Rat No. | g%  | Rat No. | g%  | Rat No. | g%  | Rat No. | g%  |
| 854     | 2.7 | 654     | 2.4 | 454     | 3.1 | 254     | 2.7 | 54      | 2.9 |
| 855     | 2.6 | 655     | 3.1 | 455     | 2.4 | 255     | 2.7 | 55      | 2.8 |
| 856     | 2.4 | 656     | 2.6 | 456     | 2.3 | 256     | 2.3 | 56      | 3.2 |
| 857     | 2.7 | 657     | 2.8 | 457     | 2.6 | 257     | 2.9 | 57      | 2.7 |
| 858     | 3.3 | 658     | 2.4 | 458     | 3.0 | 258     | 2.3 | 58      | 2.5 |
| 859     | 2.7 | 659     | 2.6 | 459     | 2.8 | 259     | 2.5 | 59      | 2.8 |
| 860     | 2.8 | 660     | 2.7 | 461     | 2.4 | 260     | 2.8 | 60      | 2.6 |
| 861     | 2.6 | 661     | 2.5 | 462     | 2.8 | 261     | 2.8 | 61      | 2.7 |

|      |      |      |      |      |      |
|------|------|------|------|------|------|
|      | 2.72 | 2.63 | 2.67 | 2.62 | 2.77 |
| S.E. | 0.09 | 0.08 | 0.10 | 0.08 | 0.07 |

No statistically significant differences were found between any group.

SL 083162

TABLE 11 - Serum GOT levels in control and ECD-exposed female rats.

| CONTROL |       | GROUP 1 |       | GROUP 2 |       | GROUP 3 |       | GROUP 4 |       |
|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml |
| 811     | 96    | 609     | 90    | 409     | 88    | 209     | 77    | 9       | 98    |
| 812     | -     | 610     | -     | 410     | -     | 210     | 96    | 10      | -     |
| 813     | -     | 611     | 84    | 411     | 95    | 211     | -     | 11      | 57    |
| 814     | 79    | 612     | -     | 412     | -     | 212     | 83    | 12      | -     |
| 815     | 64    | 613     | 78    | 413     | 73    | 213     | -     | 13      | 103   |
| 816     | 85    | 614     | -     | 414     | 71    | 214     | 91    | 14      | -     |
| 817     | 69    | 615     | 84    | 415     | -     | 215     | 62    | 15      | 98    |
| 818     | -     | 616     | 85    | 416     | 79    | 216     | 78    | 16      | 99    |

|           |       |       |       |       |
|-----------|-------|-------|-------|-------|
| $\bar{X}$ | 84.20 | 81.20 | 61.17 | 91.00 |
| S.E.      | 1.91  | 4.54  | 4.88  | 8.55  |

No statistically significant differences were found between any group.

TABLE 12 - Serum GOT levels in control and ECD-exposed male rats.

| CONTROL |       | GROUP 1 |       | GROUP 2 |       | GROUP 3 |       | GROUP 4 |       |
|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml |
| 854     | 67    | 654     | 66    | 454     | 97    | 254     | 100   | 54      | 83    |
| 855     | -     | 655     | -     | 455     | -     | 255     | -     | 55      | 75    |
| 856     | -     | 656     | 70    | 456     | 87    | 256     | 63    | 56      | -     |
| 857     | 95    | 657     | 88    | 457     | 93    | 257     | -     | 57      | 87    |
| 858     | -     | 658     | 88    | 458     | 88    | 258     | 71    | 58      | -     |
| 859     | 77    | 659     | 60    | 459     | -     | 259     | 95    | 59      | 98    |
| 860     | 63    | 660     | 88    | 461     | 90    | 260     | -     | 60      | 100   |
| 861     | -     | 661     | 85    | 462     | 99    | 261     | -     | 61      | 63    |

|      |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|
|      | 75.50 | 77.85 | 92.33 | 82.25 | 84.33 |
| X    |       |       |       |       |       |
| S.E. | 6.05  | 4.58  | 2.01  | 9.00  | 5.73  |

No statistically significant differences were found between any group.

SL 083164

TABLE 13 - Serum LDH levels in Control and ECD-exposed female rats.

| CONTROL |       | GROUP 1 |       | GROUP 2 |       | GROUP 3 |       | GROUP 4 |       |
|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml |
| 811     | 480   | 609     | -     | 409     | 370   | 209     | 640   | 9       | 550   |
| 812     | 450   | 610     | 540   | 410     | 320   | 210     | 360   | 10      | 640   |
| 813     | -     | 611     | 550   | 411     | 390   | 211     | 640   | 11      | 510   |
| 814     | 290   | 612     | 590   | 412     | 350   | 212     | 610   | 12      | -     |
| 815     | 320   | 613     | 510   | 413     | 550   | 213     | -     | 13      | 550   |
| 816     | 460   | 614     | 520   | 414     | 490   | 214     | 660   | 14      | 560   |
| 817     | 370   | 615     | 450   | 415     | -     | 215     | 380   | 15      | 340   |
| 818     | 500   | 616     | 410   | 416     | 620   | 216     | -     | 16      | 360   |

|           |        |        |        |        |        |
|-----------|--------|--------|--------|--------|--------|
| $\bar{X}$ | 410.00 | 510.00 | 441.40 | 548.30 | 501.42 |
| S.E.      | 31.32  | 23.20  | 42.79  | 56.75  | 41.83  |

Statistical analysis:  
Group C vs 3 :  $P < 0.05$

TABLE 14 - Serum LDH levels in control and ECD-exposed male rats.

| CONTROL |       | GROUP 1 |       | GROUP 2 |       | GROUP 3 |       | GROUP 4 |       |
|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml |
| 854     | 400   | 654     | 580   | 454     | 410   | 254     | 370   | 54      | 540   |
| 855     | 510   | 655     | 540   | 455     | -     | 255     | 550   | 55      | 670   |
| 856     | -     | 656     | 460   | 456     | 630   | 256     | 380   | 56      | -     |
| 857     | 570   | 657     | 630   | 457     | 550   | 257     | 660   | 57      | 600   |
| 858     | 620   | 658     | 680   | 458     | -     | 258     | 590   | 58      | 650   |
| 859     | 340   | 659     | 360   | 459     | 510   | 259     | 400   | 59      | 610   |
| 860     | 400   | 660     | 660   | 461     | 660   | 260     | 670   | 60      | 530   |
| 861     | 640   | 661     | 530   | 462     | 350   | 261     | 550   | 61      | 550   |

|           |        |        |        |        |        |
|-----------|--------|--------|--------|--------|--------|
| $\bar{X}$ | 497.14 | 555.00 | 518.33 | 521.00 | 592.80 |
| S.E.      | 44.86  | 37.97  | 49.56  | 43.34  | 20.75  |

No statistically significant differences were found between any group

TABLE 15 - Serum cholesterol levels in control and ECD-exposed female rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 811     | 130 | 609     | 105 | 409     | 115 | 209     | 110 | 9       | 135 |
| 812     | 110 | 610     | 110 | 410     | 95  | 210     | 100 | 10      | 95  |
| 813     | 115 | 611     | 110 | 411     | 115 | 211     | 115 | 11      | 95  |
| 814     | 95  | 612     | 110 | 412     | 125 | 212     | 105 | 12      | 110 |
| 815     | 100 | 613     | 80  | 413     | 140 | 213     | 105 | 13      | 120 |
| 816     | 95  | 614     | 125 | 414     | 105 | 214     | 115 | 14      | 110 |
| 817     | 130 | 615     | 120 | 415     | 90  | 215     | 120 | 15      | 115 |
| 818     | 110 | 616     | 140 | 416     | 120 | 216     | 115 | 16      | 110 |

$\bar{X}$  110.62  
S.E. 4.95

112.50  
6.12

112.60  
5.42

110.60  
2.40

110.875  
4.58

No statistically significant differences were found between any group.

TABLE 16- Serum cholesterol levels in control and ECD-exposed male rats.

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 854     | 110 | 654     | 100 | 454     | 110 | 254     | 115 | 54      | 135 |
| 855     | 110 | 655     | 155 | 455     | 130 | 255     | 115 | 55      | 115 |
| 856     | 115 | 656     | 130 | 456     | 135 | 256     | 115 | 56      | 105 |
| 857     | 115 | 657     | 135 | 457     | 135 | 257     | 125 | 57      | 120 |
| 858     | 105 | 658     | 150 | 458     | 150 | 258     | 115 | 58      | 120 |
| 859     | 95  | 659     | 100 | 459     | 135 | 259     | 105 | 59      | 115 |
| 860     | 115 | 660     | 120 | 461     | 140 | 260     | 120 | 60      | 120 |
| 861     | 100 | 661     | 155 | 462     | 130 | 261     | 120 | 61      | 110 |

|           |         |        |        |        |        |
|-----------|---------|--------|--------|--------|--------|
| $\bar{X}$ | 108.125 | 130.00 | 133.12 | 116.25 | 117.50 |
| S.E.      | 2.66    | 7.99   | 4.00   | 2.06   | 3.13   |

No statistically significant differences were found between any group.

SL 083168

TABLE 17 - Uric acid serum levels in control and ECD-exposed female rats.

| CONTROL     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|-------------|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 811 2.3     | 609     | 2.9 | 409     | 3.6 | 209     | 3.6 | 9       | 3.6 |
| 812 2.7     | 610     | 3.2 | 410     | 4.1 | 210     | 2.1 | 10      | 3.1 |
| 813 3.3     | 611     | 3.3 | 411     | 2.7 | 211     | 4.5 | 11      | 4.7 |
| 814 2.5     | 612     | 3.2 | 412     | 4.1 | 212     | 2.8 | 12      | 4.8 |
| 815 2.5     | 613     | 2.6 | 413     | 3.6 | 213     | 3.4 | 13      | 4.1 |
| 816 3.5     | 614     | 3.5 | 414     | 2.5 | 214     | 3.7 | 14      | 3.6 |
| 817 3.9     | 615     | 3.0 | 415     | 3.6 | 215     | 3.4 | 15      | 4.0 |
| 818 4.4     | 616     | 2.6 | 416     | 3.3 | 216     | 3.1 | 16      | 2.8 |

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| $\bar{X}$ | 3.13 | 3.03 | 3.43 | 3.32 | 3.84 |
| S.E.      | 0.27 | 0.11 | 0.21 | 0.25 | 0.25 |

No statistically significant differences were found between any group.

TABLE 18-Uric acid serum levels in control and ECD-exposed male rats

| CONTROL |     | GROUP 1 |     | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|-----|---------|-----|---------|-----|---------|-----|---------|-----|
| Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% | Rat No. | mg% |
| 854     | 3.3 | 654     | 3.3 | 454     | 3.1 | 254     | 3.4 | 54      | 3.7 |
| 855     | 3.3 | 655     | 3.6 | 455     | 4.0 | 255     | 2.9 | 55      | 3.5 |
| 856     | 3.0 | 656     | 3.9 | 456     | 3.7 | 256     | 2.7 | 56      | 3.3 |
| 857     | 2.7 | 657     | 3.7 | 457     | 3.3 | 257     | 3.2 | 57      | 3.2 |
| 858     | 3.3 | 658     | 3.4 | 458     | 3.2 | 258     | 3.4 | 58      | 3.9 |
| 859     | 2.5 | 659     | 3.5 | 459     | 3.1 | 259     | 3.2 | 59      | 3.8 |
| 860     | 3.1 | 660     | 3.9 | 461     | 3.9 | 260     | 2.9 | 60      | 3.4 |
| 861     | 3.3 | 661     | 3.8 | 462     | 3.8 | 261     | 3.4 | 61      | 4.4 |

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| $\bar{X}$ | 3.06 | 3.63 | 3.51 | 3.13 | 3.65 |
| S.E.      | 0.11 | 0.08 | 0.13 | 0.09 | 0.13 |

No statistically significant differences were found between any group.

TABLE 19 - Serum levels of alkaline phosphatase in Control and ECD-exposed female rats

| CONTROL |       | GROUP 1 |       | GROUP 2 |       | GROUP 3 |       | GROUP 4 |       |
|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml |
| 811     | 72    | 609     | 100   | 409     | 60    | 209     | 88    | 9       | 150   |
| 812     | 136   | 610     | 118   | 410     | 76    | 210     | 84    | 10      | 84    |
| 813     | 116   | 611     | 70    | 411     | 80    | 211     | 66    | 11      | 102   |
| 814     | 120   | 612     | 104   | 412     | 106   | 212     | 64    | 12      | 84    |
| 815     | 104   | 613     | 68    | 413     | 60    | 213     | 112   | 13      | 118   |
| 816     | 84    | 614     | 96    | 414     | 114   | 214     | 94    | 14      | 108   |
| 817     | 126   | 615     | 92    | 415     | 88    | 215     | 100   | 15      | 128   |
| 818     | 62    | 616     | 52    | 416     | 90    | 216     | 122   | 16      | 100   |

|           |        |       |       |       |       |
|-----------|--------|-------|-------|-------|-------|
| $\bar{X}$ | 102.50 | 87.50 | 84.25 | 91.25 | 96.65 |
| S.E.      | 9.51   | 7.79  | 6.90  | 7.20  | 15.73 |

No statistically significant differences were found between the groups .

TABLE 20 - Serum levels of alkaline phosphatase in control and ECD-exposed male rats.

| CONTROL |       | GROUP 1 |       | GROUP 2 |       | GROUP 3 |       | GROUP 4 |       |
|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|
| Rat No. | nU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml | Rat No. | mU/ml |
| 854     | 176   | 654     | 58    | 454     | 102   | 254     | 194   | 54      | 94    |
| 855     | 90    | 655     | 78    | 455     | 80    | 255     | 186   | 55      | 62    |
| 856     | 152   | 656     | 50    | 456     | 76    | 256     | 146   | 56      | 122   |
| 857     | 68    | 657     | 50    | 457     | 102   | 257     | 154   | 57      | 134   |
| 858     | 168   | 658     | 56    | 458     | 102   | 258     | 78    | 58      | 134   |
| 859     | 144   | 659     | 58    | 459     | 118   | 259     | 124   | 59      | 96    |
| 860     | -     | 660     | 72    | 461     | 98    | 260     | 108   | 60      | 60    |
| 861     | 162   | 661     | 48    | 462     | 122   | 261     | 142   | 61      | 116   |

|           |        |       |        |                    |        |
|-----------|--------|-------|--------|--------------------|--------|
| $\bar{X}$ | 137.14 | 58.75 | 100.00 | 141.5 <sup>0</sup> | 102.25 |
| S.E.      | 14.68  | 3.83  | 5.66   | 13.61              | 10.44  |

Statistical analysis :

Group 1 vs 4 :  $P < 0.05$   
 " 1 vs 2 :  $P < 0.05$   
 " 1 vs 4 :  $P < 0.001$   
 " 1 vs 3 :  $P < 0.001$

TABLE 21 - Percent concentration of albumin in control and ECD-exposed female rats.

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  |
| 811     | 57.1 | 609     | 50.7 | 409     | 50.0 | 209     | 48.5 | 9       | 49.8 |
| 812     | 51.0 | 610     | 50.1 | 410     | 48.8 | 210     | 52.0 | 10      | 51.2 |
| 813     | 55.3 | 611     | 52.9 | 411     | 55.3 | 211     | 52.6 | 11      | 47.1 |
| 814     | 50.0 | 612     | 50.3 | 412     | 50.8 | 212     | 54.8 | 12      | 48.0 |
| 815     | 53.7 | 613     | 52.2 | 413     | 50.8 | 213     | 48.4 | 13      | 53.7 |
| 816     | 50.9 | 614     | 52.3 | 414     | 49.2 | 214     | 57.0 | 14      | 43.3 |
| 817     | 53.3 | 615     | 55.5 | 415     | 47.5 | 215     | 49.3 | 15      | 50.7 |
| 818     | 41.2 | 616     | 47.9 | 416     | 48.0 | 216     | 52.1 | 16      | 49.1 |

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| $\bar{X}$ | 51.56 | 51.48 | 50.05 | 51.83 | 49.11 |
| S.E.      | 1.70  | 0.80  | 0.86  | 1.08  | 1.10  |

No statistically significant differences were found between the groups.

TABLE 22 - Percent concentration of albumin in control and ECD-exposed male rats.

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  |
| 854     | 58.8 | 654     | 44.9 | 454     | 48.6 | 254     | 45.6 | 54      | 47.3 |
| 855     | 47.6 | 655     | 43.0 | 455     | 41.4 | 255     | 54.4 | 55      | 44.7 |
| 856     | 45.0 | 656     | 58.3 | 456     | 34.1 | 256     | 47.1 | 56      | 45.1 |
| 857     | 48.9 | 657     | 48.0 | 457     | 50.0 | 257     | 47.8 | 57      | 54.2 |
| 858     | 45.9 | 658     | 48.5 | 458     | 41.2 | 258     | 50.2 | 58      | 54.6 |
| 859     | 55.1 | 659     | 44.4 | 459     | 49.2 | 259     | 45.7 | 59      | 40.8 |
| 860     | 51.3 | 660     | 46.7 | 461     | 38.8 | 260     | 48.3 | 60      | 47.9 |
| 861     | 41.2 | 661     | 44.5 | 462     | 41.2 | 261     | 48.3 | 61      | 40.0 |

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| $\bar{X}$ | 49.26 | 47.28 | 43.06 | 48.42 | 46.82 |
| S.E.      | 2.00  | 1.71  | 2.00  | 1.00  | 5.41  |

No statistically significant differences were found between any group.

TABLE 23 - Percent concentration of alpha-1-globulins in control and ECD exposed female rats.

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  |
| 811     | 11.4 | 609     | 13.7 | 409     | 14.9 | 209     | 15.2 | 9       | 13.9 |
| 812     | 13.0 | 610     | 14.5 | 410     | 15.4 | 210     | 18.2 | 10      | 16.5 |
| 813     | 14.6 | 611     | 16.4 | 411     | 14.6 | 211     | 13.3 | 11      | 16.2 |
| 814     | 18.8 | 612     | 17.0 | 412     | 15.9 | 212     | 15.1 | 12      | 12.0 |
| 815     | 16.3 | 613     | 14.2 | 413     | 16.0 | 213     | 13.2 | 13      | 14.5 |
| 816     | 14.8 | 614     | 17.7 | 414     | 19.7 | 214     | 11.6 | 14      | 16.1 |
| 817     | 16.9 | 615     | 15.4 | 415     | 15.0 | 215     | 17.0 | 15      | 12.1 |
| 818     | 14.8 | 616     | 16.0 | 416     | 19.2 | 216     | 15.1 | 16      | 18.2 |

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| $\bar{X}$ | 15.07 | 15.61 | 16.33 | 14.80 | 14.93 |
| S.E.      | 0.81  | 0.50  | 0.70  | 0.75  | 0.78  |

No statistically significant differences were found between the groups.

TABLE 24 - Percent concentration of alfa- 1 - globulins in control and ECD-exposed male rats.

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  |
| 854     | 11.4 | 654     | 22.5 | 454     | 16.7 | 254     | 17.8 | 54      | 14.3 |
| 855     | 16.0 | 655     | 16.0 | 455     | 22.7 | 255     | 12.0 | 55      | 15.4 |
| 856     | 20.0 | 656     | 12.1 | 456     | 22.0 | 256     | 17.7 | 56      | 18.4 |
| 857     | 20.0 | 657     | 17.6 | 457     | 14.0 | 257     | 19.3 | 57      | 13.6 |
| 858     | 16.5 | 658     | 12.5 | 458     | 20.6 | 258     | 16.7 | 58      | 16.7 |
| 859     | 10.9 | 659     | 20.3 | 459     | 14.7 | 259     | 17.7 | 59      | 19.8 |
| 860     | 17.5 | 660     | 20.4 | 461     | 21.3 | 260     | 16.5 | 60      | 16.4 |
| 861     | 20.2 | 661     | 18.1 | 462     | 20.7 | 261     | 16.1 | 61      | 19.0 |

|           |       |       |       |        |       |
|-----------|-------|-------|-------|--------|-------|
| $\bar{X}$ | 16.56 | 16.68 | 19.08 | 16.725 | 16.70 |
| S.E.      | 1.31  | 1.62  | 1.21  | 0.76   | 0.79  |

No statistically significant differences were found between the groups.

TABLE 25 - Percent concentration of alpha-2-globulins in control and ECD-exposed female rats

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  |
| 811     | 8.2  | 609     | 9.6  | 409     | 10.7 | 209     | 13.7 | 9       | 6.9  |
| 812     | 10.2 | 610     | 8.2  | 410     | 10.3 | 210     | 7.9  | 10      | 6.5  |
| 813     | 9.4  | 611     | 9.0  | 411     | 7.3  | 211     | 7.6  | 11      | 11.8 |
| 814     | 7.9  | 612     | 10.2 | 412     | 9.6  | 212     | 8.3  | 12      | 8.0  |
| 815     | 6.4  | 613     | 10.9 | 413     | 9.5  | 213     | 13.2 | 13      | 11.6 |
| 816     | 8.5  | 614     | 8.6  | 414     | 9.9  | 214     | 6.7  | 14      | 12.4 |
| 817     | 6.5  | 615     | 6.4  | 415     | 12.5 | 215     | 8.5  | 15      | 12.1 |
| 818     | 10.3 | 616     | 8.7  | 416     | 8.3  | 216     | 12.4 | 16      | 9.1  |

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| $\bar{X}$ | 8.42 | 8.95 | 9.76 | 9.78 | 9.80 |
| S.E.      | 0.53 | 0.48 | 0.55 | 0.99 | 0.87 |

No statistically significant differences were found between any group.

SL 083177

TABLE 26 - Percent concentration of alfa-2-globulins in control and ECD-exposed male rats.

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  |
| 854     | 9.3  | 654     | 8.2  | 454     | 10.8 | 254     | 7.6  | 54      | 13.2 |
| 855     | 8.7  | 655     | 13.0 | 455     | 14.7 | 255     | 6.6  | 55      | 12.4 |
| 856     | 8.4  | 656     | 9.9  | 456     | 17.6 | 256     | 9.9  | 56      | 9.9  |
| 857     | 11.2 | 657     | 8.3  | 457     | 10.0 | 257     | 10.1 | 57      | 10.8 |
| 858     | 9.5  | 658     | 10.1 | 458     | 13.3 | 258     | 8.4  | 58      | 13.1 |
| 859     | 10.9 | 659     | 9.5  | 459     | 11.5 | 259     | 10.6 | 59      | 14.5 |
| 860     | 10.0 | 660     | 10.7 | 461     | 12.5 | 260     | 9.5  | 60      | 6.6  |
| 861     | 10.5 | 661     | 8.4  | 462     | 12.7 | 261     | 11.5 | 61      | 13.7 |
| X       |      | 9.76    |      | 12.88   |      | 9.27    |      | 11.77   |      |
| S.E.    |      | 0.57    |      | 0.85    |      | 0.57    |      | 0.91    |      |

No statistically significant differences were found between the groups.

SL 083178

TABLE 27 - Percent concentration of beta globulins in control and ECD-exposed female rats.

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  |
| 811     | 14   | 609     | 16.5 | 409     | 14.9 | 209     | 15.2 | 9       | 22.0 |
| 812     | 16.7 | 610     | 19.9 | 410     | 16.7 | 210     | 15.8 | 10      | 17.9 |
| 813     | 14.6 | 611     | 15.4 | 411     | 15.7 | 211     | 15.1 | 11      | 17.7 |
| 814     | 17.6 | 612     | 14.1 | 412     | 15.9 | 212     | 13.7 | 12      | 20.0 |
| 815     | 13.6 | 613     | 16.4 | 413     | 15.5 | 213     | 15.4 | 13      | 16.0 |
| 816     | 16.4 | 614     | 12.8 | 414     | 16.4 | 214     | 16.2 | 14      | 18.6 |
| 817     | 18.2 | 615     | 15.2 | 415     | 15.0 | 215     | 15.5 | 15      | 14.5 |
| 818     | 22.1 | 616     | 18.9 | 416     | 16.5 | 216     | 13.7 | 16      | 17.3 |

|      |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|
| X    | 15.20 | 16.15 | 15.82 | 15.07 | 18.10 |
| S.E. | 1.96  | 0.83  | 0.24  | 0.32  | 0.87  |

No statistically significant differences were found between any group.

SL 083179

TABLE 28 - Percent concentration of beta-globulins in control and ECD-exposed male rats

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  |
| 854     | 12.4 | 654     | 16.4 | 454     | 17.9 | 254     | 21.5 | 54      | 17.6 |
| 855     | 20.3 | 655     | 21.0 | 455     | 13.4 | 255     | 20.7 | 55      | 17.0 |
| 856     | 18.4 | 656     | 12.1 | 456     | 16.5 | 256     | 17.7 | 56      | 18.4 |
| 857     | 16.9 | 657     | 17.8 | 457     | 19.0 | 257     | 16.3 | 57      | 13.6 |
| 858     | 21.2 | 658     | 18.0 | 458     | 16.2 | 258     | 18.8 | 58      | 10.8 |
| 859     | 14.9 | 659     | 17.6 | 459     | 16.4 | 259     | 16.5 | 59      | 17.2 |
| 860     | 15.0 | 660     | 14.6 | 461     | 20.0 | 260     | 14.2 | 60      | 19.6 |
| 861     | 19.4 | 661     | 19.5 | 462     | 17.3 | 261     | 17.3 | 61      | 19.0 |

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| $\bar{X}$ | 17.31 | 17.12 | 17.08 | 17.87 | 16.65 |
| S.E.      | 1.07  | 0.98  | 0.71  | 0.84  | 1.05  |

No statistically significant differences were found between any group.

SL 083180

TABLE 29 - Percent concentration of gamma-globulins in control and ECD-exposed female rats.

| CONTROL |      | GROUP 1 |     | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|-----|---------|------|---------|------|---------|------|
| Rat No. | mg%  | Rat No. | mg% | Rat No. | mg%  | Rat No. | mg%  | Rat No. | mg%  |
| 811     | 9.4  | 609     | 9.6 | 409     | 9.6  | 209     | 7.5  | 9       | 7.6  |
| 812     | 9.9  | 610     | 7.3 | 410     | 9.0  | 210     | 6.3  | 10      | 7.9  |
| 813     | 6.3  | 611     | 6.4 | 411     | 7.3  | 211     | 11.4 | 11      | 7.4  |
| 814     | 6.3  | 612     | 8.4 | 412     | 8.0  | 212     | 8.3  | 12      | 12.0 |
| 815     | 10.0 | 613     | 6.6 | 413     | 8.3  | 213     | 9.9  | 13      | 4.4  |
| 816     | 9.4  | 614     | 8.5 | 414     | 5.0  | 214     | 8.6  | 14      | 9.9  |
| 817     | 5.2  | 615     | 7.6 | 415     | 10.0 | 215     | 9.9  | 15      | 10.6 |
| 818     | 11.8 | 616     | 8.7 | 416     | 8.3  | 216     | 6.9  | 16      | 6.4  |

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| $\bar{X}$ | 8.53 | 7.88 | 8.18 | 8.50 | 8.28 |
| S.E.      | 0.81 | 0.39 | 0.55 | 0.60 | 0.87 |

No statistically significant differences were found between any group .

SL 083181

TABLE 30 - Percent concentration of gamma globulins in control and ECD-exposed male rats.

| CONTROL |     | GROUP 1 |      | GROUP 2 |     | GROUP 3 |      | GROUP 4 |      |
|---------|-----|---------|------|---------|-----|---------|------|---------|------|
| Rat No. | mg% | Rat No. | mg%  | Rat No. | mg% | Rat No. | mg%  | Rat No. | mg%  |
| 854     | 8.3 | 654     | 8.2  | 454     | 6.0 | 254     | 7.5  | 54      | 7.7  |
| 855     | 7.3 | 655     | 7.0  | 455     | 8.0 | 255     | 6.6  | 55      | 10.5 |
| 856     | 8.4 | 656     | 7.7  | 456     | 9.9 | 256     | 7.9  | 56      | 8.2  |
| 857     | 3.2 | 657     | 8.3  | 457     | 7.0 | 257     | 6.7  | 57      | 8.2  |
| 858     | 7.1 | 658     | 10.9 | 458     | 8.9 | 258     | 6.1  | 58      | 4.8  |
| 859     | 8.2 | 659     | 8.2  | 459     | 8.2 | 259     | 9.5  | 59      | 7.9  |
| 860     | 6.3 | 660     | 7.8  | 461     | 7.5 | 260     | 11.8 | 60      | 9.8  |
| 861     | 8.9 | 661     | 9.7  | 462     | 8.1 | 261     | 6.9  | 61      | 8.5  |

|      |      |      |      |      |      |
|------|------|------|------|------|------|
| X    | 7.21 | 8.47 | 7.95 | 7.87 | 8.20 |
| S.E. | 0.64 | 0.44 | 0.41 | 0.67 | 0.59 |

No statistically significant differences were found between any group.

TABLE 31 -  $\text{Na}^+$  concentration in control and ECD-exposed female rats

| CONTROL |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 811     | 148    | 609     | 150    | 409     | 150    | 209     | 150    | 9       | 143    |
| 812     | 142    | 610     | 140    | 410     | 152    | 210     | 151    | 10      | 148    |
| 813     | 150    | 611     | 147    | 411     | 143    | 211     | 140    | 11      | 147    |
| 814     | 145    | 612     | 145    | 412     | 150    | 212     | 147    | 12      | 143    |
| 815     | 149    | 613     | 152    | 413     | 145    | 213     | 137    | 13      | 150    |
| 816     | 150    | 614     | 147    | 414     | 152    | 214     | 145    | 14      | 143    |
| 817     | 152    | 615     | 147    | 415     | 141    | 215     | 148    | 15      | 140    |
| 818     | 145    | 616     | 148    | 416     | 140    | 216     | 140    | 16      | 140    |

|           |        |        |        |        |        |
|-----------|--------|--------|--------|--------|--------|
| $\bar{X}$ | 147.62 | 147.00 | 146.62 | 144.75 | 144.25 |
| S.E.      | 1.18   | 1.25   | 1.75   | 1.83   | 1.31   |

No statistically significant differences were found between the groups.

TABLE 32 - Na<sup>+</sup> concentration in control and ECD-exposed male rats

| CONTROL |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 854     | 145    | 654     | 144    | 454     | 147    | 254     | 146    | 54      | 143    |
| 855     | 152    | 655     | 147    | 455     | 145    | 255     | 150    | 55      | 150    |
| 856     | 152    | 656     | 147    | 456     | 145    | 256     | 150    | 56      | 140    |
| 857     | 152    | 657     | 145    | 457     | 143    | 257     | 150    | 57      | 152    |
| 858     | 145    | 658     | 143    | 458     | 155    | 258     | 147    | 58      | 152    |
| 859     | 150    | 659     | 143    | 459     | 150    | 259     | 145    | 59      | 147    |
| 860     | 148    | 660     | 152    | 461     | 148    | 260     | 147    | 60      | 148    |
| 861     | 145    | 661     | 151    | 462     | 152    | 261     | 146    | 61      | 150    |

|           |        |        |        |        |        |
|-----------|--------|--------|--------|--------|--------|
| $\bar{X}$ | 148.62 | 146.50 | 148.12 | 147.60 | 147.75 |
| S.E.      | 1.16   | 1.22   | 1.42   | 0.73   | 1.52   |

No statistically significant differences were found between any group.

SL 083184

TABLE 33 - K<sup>+</sup> concentration in control and ECD-exposed female rats.

| CONTROL |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 811     | 9.5    | 609     | 9.5    | 409     | 9.6    | 209     | 9.9    | 9       | 9.2    |
| 812     | 8.7    | 610     | 9.9    | 410     | 9.7    | 210     | 7.9    | 10      | 9.8    |
| 813     | 8.5    | 611     | 9.3    | 411     | 9.4    | 211     | 9.9    | 11      | 9.2    |
| 814     | 7.8    | 612     | 9.7    | 412     | 9.1    | 212     | 7.6    | 12      | 9.8    |
| 815     | 8.2    | 613     | 8.7    | 413     | 9.9    | 213     | 9.7    | 13      | 9.9    |
| 816     | 9.5    | 614     | 9.9    | 414     | 8.4    | 214     | 9.0    | 14      | 9.8    |
| 817     | 7.7    | 615     | 9.6    | 415     | 9.8    | 215     | 9.8    | 15      | 9.2    |
| 818     | 9.8    | 616     | 8.2    | 416     | 9.2    | 216     | 9.9    | 16      | 9.6    |

|      |      |      |      |      |      |
|------|------|------|------|------|------|
| X̄   | 8.35 | 9.35 | 9.38 | 9.21 | 9.56 |
| S.E. | 0.19 | 0.21 | 0.17 | 0.34 | 0.11 |

No statistically significant differences were found between any group.

TABLE 34 -  $K^+$  concentration in control and ECD-exposed male rats.

| CONTROL |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 854     | 8.2    | 654     | 9.0    | 454     | 9.9    | 254     | 9.6    | 54      | 9.9    |
| 855     | 9.4    | 655     | 9.6    | 455     | 9.5    | 255     | 7.0    | 55      | 9.5    |
| 856     | 8.8    | 656     | 9.4    | 456     | 9.5    | 256     | 7.9    | 56      | 9.8    |
| 857     | 9.5    | 657     | 9.0    | 457     | 7.8    | 257     | 8.4    | 57      | 9.8    |
| 858     | 9.0    | 658     | 9.8    | 458     | 9.8    | 258     | 9.3    | 58      | 9.7    |
| 859     | 8.4    | 659     | 9.2    | 459     | 9.6    | 259     | 9.8    | 59      | 9.4    |
| 860     | 8.5    | 660     | 9.8    | 461     | 8.8    | 260     | 9.6    | 60      | 7.9    |
| 861     | 8.9    | 661     | 8.9    | 462     | 9.9    | 261     | 9.9    | 61      | 9.6    |

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| $\bar{X}$ | 8.83 | 9.33 | 9.35 | 8.93 | 9.45 |
| S.E.      | 0.16 | 0.13 | 0.25 | 0.37 | 0.23 |

No statistically significant differences were found between the groups.

TABLE 35 -  $\text{Ca}^{++}$  concentration in control and ECD-exposed female rats.

| CONTROL |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 811     | 10.8   | 609     | 9.7    | 409     | 9.6    | 209     | 9.0    | 9       | 10.5   |
| 812     | 9.4    | 610     | 8.5    | 410     | 7.7    | 210     | 9.9    | 10      | 7.6    |
| 813     | 9.1    | 611     | 9.0    | 411     | 10.2   | 211     | 9.5    | 11      | 10.0   |
| 814     | 9.1    | 612     | 9.0    | 412     | 8.5    | 212     | 10.5   | 12      | 9.9    |
| 815     | 9.3    | 613     | 6.7    | 413     | 9.0    | 213     | 9.5    | 13      | 8.7    |
| 816     | 7.0    | 614     | 10.3   | 414     | 10.2   | 214     | 10.8   | 14      | 9.3    |
| 817     | 12.0   | 615     | 9.7    | 415     | 8.0    | 215     | 11.0   | 15      | 9.1    |
| 818     | 9.1    | 616     | 9.3    | 416     | 9.9    | 216     | 9.9    | 16      | 8.7    |

|      |      |      |      |       |       |
|------|------|------|------|-------|-------|
| X    | 9.47 | 9.02 | 9.13 | 10.01 | 9.225 |
| S.E. | 0.51 | 0.38 | 0.35 | 0.24  | 0.32  |

No statistically significant differences were found between any group.

TABLE 36 -  $\text{Ca}^{++}$  concentration in control and ECD-exposed male rats.

| CONTROL   |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|-----------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No.   | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 854       | 9.5    | 654     | 8.9    | 454     | 8.8    | 254     | 8.7    | 54      | 8.5    |
| 855       | 9.8    | 655     | 6.9    | 455     | 9.8    | 255     | 9.7    | 55      | 11.1   |
| 856       | 10.4   | 656     | 8.0    | 456     | 8.3    | 256     | 8.2    | 56      | 10.3   |
| 857       | 9.2    | 657     | 9.8    | 457     | 9.9    | 257     | 11.1   | 57      | 9.3    |
| 858       | 9.3    | 658     | 9.3    | 458     | 8.7    | 258     | 8.7    | 58      | 9.0    |
| 859       | 9.3    | 659     | 8.3    | 459     | 8.9    | 259     | 9.3    | 59      | 8.9    |
| 860       | 8.4    | 660     | 8.8    | 461     | 8.8    | 260     | 9.6    | 60      | 10.2   |
| 861       | 9.9    | 661     | 9.6    | 462     | 9.4    | 261     | 10.0   | 61      | 8.6    |
| $\bar{X}$ | 9.47   | 8.57    |        | 9.07    |        | 9.41    |        | 9.48    |        |
| S.E.      | 0.21   | 0.33    |        | 0.20    |        | 0.32    |        | 0.33    |        |

No statistically significant differences were found between any group.

TABLE 37 -  $\text{Cl}^-$  concentration in control and ECD-exposed female rats.

| CONTROL |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 811     | 112    | 609     | 95     | 409     | 104    | 209     | 101    | 9       | 102    |
| 812     | 97     | 610     | 105    | 410     | 99     | 210     | 110    | 10      | 109    |
| 813     | 104    | 611     | 100    | 411     | 100    | 211     | 107    | 11      | 120    |
| 814     | 98     | 612     | 100    | 412     | 107    | 212     | 110    | 12      | 97     |
| 815     | 93     | 613     | 108    | 413     | 105    | 213     | 100    | 13      | 112    |
| 816     | 95     | 614     | 105    | 414     | 118    | 214     | 102    | 14      | 116    |
| 817     | 98     | 615     | 106    | 415     | 102    | 215     | 97     | 15      | 103    |
| 818     | 101    | 616     | 107    | 416     | 108    | 216     | 120    | 16      | 103    |

|           |       |        |        |        |        |
|-----------|-------|--------|--------|--------|--------|
| $\bar{X}$ | 99.75 | 103.25 | 105.37 | 105.80 | 107.75 |
| S.E.      | 2.12  | 1.58   | 2.12   | 2.63   | 3.09   |

No statistically significant differences were found between any group.

TABLE 38 -  $\text{Cl}^-$  concentration in control and ECD-exposed male rats.

| CONTROL |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 854     | 107    | 654     | 104    | 454     | 98     | 254     | 97     | 54      | 104    |
| 855     | 119    | 655     | 98     | 455     | 98     | 255     | 94     | 55      | 111    |
| 856     | 98     | 656     | 103    | 456     | 98     | 256     | 98     | 56      | 108    |
| 857     | 102    | 657     | 99     | 457     | 121    | 257     | 106    | 57      | 99     |
| 858     | 118    | 658     | 102    | 458     | 107    | 258     | 100    | 58      | 102    |
| 859     | 117    | 659     | 105    | 459     | 106    | 259     | 102    | 59      | 100    |
| 860     | 99     | 660     | 117    | 461     | 96     | 260     | 100    | 60      | 102    |
| 861     | 114    | 661     | 110    | 462     | 100    | 261     | 109    | 61      | 97     |

|           |        |        |        |        |        |
|-----------|--------|--------|--------|--------|--------|
| $\bar{X}$ | 109.25 | 104.75 | 103.00 | 100.75 | 102.87 |
| S.E.      | 3.11   | 2.18   | 2.93   | 1.72   | 1.65   |

No statistically significant differences were found between any group.

TABLE 39 - Inorganic P concentration in control and ECD-exposed female rats.

| CONTROL |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 811     | 7.0    | 609     | 6.4    | 409     | 6.6    | 209     | 6.5    | 9       | 7.0    |
| 812     | 5.8    | 610     | 6.6    | 410     | 5.8    | 210     | 7.5    | 10      | 4.2    |
| 813     | 6.0    | 611     | 4.7    | 411     | 5.5    | 211     | 7.6    | 11      | 5.9    |
| 814     | 4.7    | 612     | 5.6    | 412     | 5.2    | 212     | 3.9    | 12      | 7.4    |
| 815     | 4.9    | 613     | 4.5    | 413     | 7.2    | 213     | 7.8    | 13      | 7.6    |
| 816     | 4.5    | 614     | 5.8    | 414     | 6.2    | 214     | 6.7    | 14      | 8.0    |
| 817     | 5.5    | 615     | 6.0    | 415     | 4.7    | 215     | 6.7    | 15      | 6.7    |
| 818     | 7.2    | 616     | 5.6    | 416     | 5.0    | 216     | 8.0    | 16      | 5.9    |

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| $\bar{X}$ | 5.70 | 5.65 | 5.77 | 6.83 | 6.59 |
| S.E.      | 0.36 | 0.26 | 0.30 | 0.46 | 0.43 |

No statistically significant differences were found between the groups.

SL 083191

TABLE 40 - Inorganic P in control and ECD-exposed male rats

| CONTROL |        | GROUP 1 |        | GROUP 2 |        | GROUP 3 |        | GROUP 4 |        |
|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|
| Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml | Rat No. | mEq/ml |
| 854     | 6.2    | 654     | 6.5    | 454     | 6.9    | 254     | 5.7    | 54      | 9.4    |
| 855     | 6.7    | 655     | 10.0   | 455     | 7.9    | 255     | 6.2    | 55      | 7.6    |
| 856     | 5.8    | 656     | 6.4    | 456     | 7.2    | 256     | 5.8    | 56      | 5.0    |
| 857     | 4.3    | 657     | 7.3    | 457     | 5.0    | 257     | 6.5    | 57      | 6.7    |
| 858     | 9.3    | 658     | 6.0    | 458     | 8.1    | 258     | 4.4    | 58      | 7.8    |
| 859     | 4.7    | 659     | 6.3    | 459     | 6.3    | 259     | 6.2    | 59      | 8.7    |
| 860     | 5.0    | 660     | 7.6    | 461     | 7.0    | 260     | 6.9    | 60      | 6.0    |
| 861     | 6.7    | 661     | 6.6    | 462     | 6.3    | 261     | 7.1    | 61      | 7.0    |

|           |      |      |      |      |      |
|-----------|------|------|------|------|------|
| $\bar{X}$ | 6.08 | 7.08 | 6.82 | 6.10 | 7.27 |
| S.E.      | 0.55 | 0.46 | 0.34 | 0.30 | 0.50 |

No statistically significant differences were found between any group.

SL 083192

TABLE 41 - Leukocyte numbers in control and ECD-exposed female rats.

| CONTROL |                     | GROUP 1 |                     | GROUP 2 |                     | GROUP 3 |                     | GROUP 4 |                     |
|---------|---------------------|---------|---------------------|---------|---------------------|---------|---------------------|---------|---------------------|
| Rat No. | (x10 <sup>3</sup> ) | Rat No. | (x10 <sup>3</sup> ) | Rat No. | (x10 <sup>3</sup> ) | Rat No. | (x10 <sup>3</sup> ) | Rat No. | (x10 <sup>3</sup> ) |
| 811     | 10.8                | 609     | 6.0                 | 409     | 7.8                 | 209     | 8.0                 | 9       | 6.0                 |
| 812     | 17.0                | 610     | 8.4                 | 410     | 9.6                 | 210     | 8.0                 | 10      | 8.0                 |
| 813     | 7.6                 | 611     | 12.8                | 411     | 5.4                 | 211     | 5.8                 | 11      | 4.8                 |
| 814     | 6.6                 | 612     | 5.0                 | 412     | 6.6                 | 212     | 10.0                | 12      | 7.2                 |
| 815     | 9.6                 | 613     | 12.4                | 413     | 8.6                 | 213     | 7.8                 | 13      | 5.6                 |
| 816     | 6.4                 | 614     | 5.4                 | 414     | 7.6                 | 214     | 12.2                | 14      | 6.6                 |
| 817     | 1.6                 | 615     | 10.8                | 415     | 8.2                 | 215     | 8.0                 | 15      | 5.8                 |
| 818     | 6.4                 | 616     | 7.6                 | 416     | 7.8                 | 216     | 5.4                 | 16      | 6.6                 |

|           |      |      |      |      |       |
|-----------|------|------|------|------|-------|
| $\bar{X}$ | 8.25 | 8.55 | 7.70 | 8.02 | 6.325 |
| S.E.      | 1.57 | 1.10 | 0.45 | 0.78 | 0.35  |

No statistically significant differences were found between the groups.

TABLE 42 - Leukocyte numbers in control and ECD-exposed male rats.

| CONTROL   |                   | GROUP 1 |                   | GROUP 2 |                   | GROUP 3 |                   | GROUP 4 |                   |
|-----------|-------------------|---------|-------------------|---------|-------------------|---------|-------------------|---------|-------------------|
| Rat No.   | ( $\times 10^3$ ) | Rat No. | ( $\times 10^3$ ) | Rat No. | ( $\times 10^3$ ) | Rat No. | ( $\times 10^3$ ) | Rat No. | ( $\times 10^3$ ) |
| 854       | 6.0               | 654     | 6.4               | 454     | 9.8               | 254     | 9.2               | 54      | 5.0               |
| 855       | 5.6               | 655     | 11.0              | 455     | 6.4               | 255     | 14.0              | 55      | 8.0               |
| 856       | 21.8              | 656     | 6.8               | 456     | 6.8               | 256     | 13.0              | 56      | 6.2               |
| 857       | 9.6               | 657     | 5.6               | 457     | 12.0              | 257     | 7.6               | 57      | 8.0               |
| 858       | 11.0              | 658     | 4.0               | 458     | 7.8               | 258     | 8.4               | 58      | 13.6              |
| 859       | 7.4               | 659     | 4.2               | 459     | 5.6               | 259     | 7.6               | 59      | 11.8              |
| 860       | 9.0               | 660     | 4.6               | 461     | 10.8              | 260     | 6.0               | 60      | 6.4               |
| 861       | 3.8               | 661     | 9.2               | 462     | 15.6              | 261     | 14.6              | 61      | 2.6               |
| $\bar{X}$ | 9.27              |         | 6.47              |         | 9.35              |         | 10.05             |         | 7.70              |
| S.E.      | 1.97              |         | 0.88              |         | 1.19              |         | 1.17              |         | 1.26              |

No statistically significant differences were found between the groups.

TABLE 43 - Hematocrit value in control and ECD-exposed female rats.

| CONTROL |    | GROUP 1 |    | GROUP 2 |    | GROUP 3 |    | GROUP 4 |    |
|---------|----|---------|----|---------|----|---------|----|---------|----|
| Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  |
| 811     | 40 | 609     | 39 | 409     | 38 | 209     | 37 | 9       | 41 |
| 812     | 37 | 610     | 31 | 410     | 36 | 210     | 40 | 10      | 31 |
| 813     | 35 | 611     | 42 | 411     | 30 | 211     | 33 | 11      | 43 |
| 814     | 43 | 612     | 40 | 412     | 36 | 212     | -  | 12      | 38 |
| 815     | 41 | 613     | 44 | 413     | 35 | 213     | 34 | 13      | 35 |
| 816     | 34 | 614     | 37 | 414     | 37 | 214     | 47 | 14      | 28 |
| 817     | -  | 615     | 35 | 415     | 44 | 215     | 39 | 15      | 39 |
| 818     | 38 | 616     | 39 | 416     | 41 | 216     | 26 | 16      | 40 |

|      |       |       |        |       |       |
|------|-------|-------|--------|-------|-------|
| X    | 32.57 | 38.37 | 37.125 | 36.57 | 36.87 |
| S.E. | 1.78  | 1.44  | 1.47   | 2.48  | 1.83  |

No statistically significant differences were found between the groups.

TABLE 44 - Hematocrit value in control and ECD-exposed male rats.

| CONTROL |    | GROUP 1 |    | GROUP 2 |    | GROUP 3 |    | GROUP 4 |    |
|---------|----|---------|----|---------|----|---------|----|---------|----|
| Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  |
| 854     | 44 | 654     | 37 | 454     | 45 | 254     | 43 | 54      | 40 |
| 855     | 43 | 655     | 44 | 455     | 45 | 255     | 43 | 55      | 34 |
| 856     | 39 | 656     | 37 | 456     | 36 | 256     | 48 | 56      | 40 |
| 857     | 43 | 657     | -  | 457     | 45 | 257     | 43 | 57      | 37 |
| 858     | 43 | 658     | 42 | 458     | 39 | 258     | 41 | 58      | 48 |
| 859     | 46 | 659     | 34 | 459     | 43 | 259     | 41 | 59      | 40 |
| 860     | 40 | 660     | 45 | 461     | 41 | 260     | 45 | 60      | 43 |
| 861     | 43 | 661     | 41 | 462     | 45 | 261     | 50 | 61      | 34 |
| X       |    | 42.62   |    | 40.00   |    | 42.37   |    | 44.25   |    |
| S.E.    |    | 0.77    |    | 1.54    |    | 1.21    |    | 1.15    |    |

No statistically significant differences were found between the groups.

SL 083196

TABLE 45 - Hemoglobin concentration in control and ECD-exposed female rats.

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | %    | Rat No. | %    | Rat No. | %    | Rat No. | %    | Rat No. | %    |
| 811     | 20.0 | 609     | 13.0 | 409     | 14.6 | 209     | 12.8 | 9       | 13.6 |
| 812     | 14.0 | 610     | 11.8 | 410     | 18.0 | 210     | 14.6 | 10      | 13.1 |
| 813     | 14.4 | 611     | 12.4 | 411     | 11.8 | 211     | 14.2 | 11      | 13.2 |
| 814     | 15.0 | 612     | 15.6 | 412     | 14.6 | 212     | 14.2 | 12      | 14.8 |
| 815     | 14.8 | 613     | 13.6 | 413     | 12.4 | 213     | 15.6 | 13      | 6.2  |
| 816     | 13.6 | 614     | 11.6 | 414     | 13.2 | 214     | 14.6 | 14      | 15.2 |
| 817     | 8.8  | 615     | 12.2 | 415     | 15.8 | 215     | 13.2 | 15      | 15.0 |
| 818     | 19.0 | 616     | 13.4 | 416     | 13.0 | 216     | 14.2 | 16      | 15.4 |

|           |       |       |        |       |       |
|-----------|-------|-------|--------|-------|-------|
| $\bar{X}$ | 14.95 | 11.51 | 14.165 | 14.17 | 13.31 |
| S.E.      | 1.21  | 1.51  | 0.71   | 0.31  | 1.06  |

No statistically significant differences were found between the groups.

TABLE 46 - Hemoglobin concentration in control and ECD-exposed male rats.

| CONTROL |      | GROUP 1 |      | GROUP 2 |      | GROUP 3 |      | GROUP 4 |      |
|---------|------|---------|------|---------|------|---------|------|---------|------|
| Rat No. | %    | Rat No. | %    | Rat No. | %    | Rat No. | %    | Rat No. | %    |
| 854     | 15.2 | 654     | 13.0 | 454     | 16.4 | 254     | 15.4 | 54      | 13.0 |
| 855     | 15.2 | 655     | 15.4 | 455     | 14.6 | 255     | 15.4 | 55      | 12.2 |
| 856     | 14.2 | 656     | 13.4 | 456     | 15.0 | 256     | 13.4 | 56      | 13.4 |
| 857     | 13.6 | 657     | 15.6 | 457     | 13.8 | 257     | 13.4 | 57      | 15.0 |
| 858     | 15.8 | 658     | 14.8 | 458     | 15.4 | 258     | 14.8 | 58      | 14.8 |
| 859     | 13.2 | 659     | 14.0 | 459     | 13.2 | 259     | 13.6 | 59      | 15.2 |
| 860     | 13.6 | 660     | 15.0 | 461     | 14.4 | 260     | 15.0 | 60      | 16.0 |
| 861     | 15.4 | 661     | 15.0 | 462     | 15.0 | 261     | 15.6 | 61      | 4.0  |

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| $\bar{X}$ | 14.52 | 14.52 | 14.72 | 14.57 | 12.95 |
| E.        | 0.35  | 0.33  | 0.34  | 0.34  | 1.35  |

No statistically significant differences were found between any group.

SL 083198

TABLE 47 - Erythrocyte numbers in control and ECD-exposed female rats.

| CONTROL                   | GROUP 1                   | GROUP 2                   | GROUP 3                   | GROUP 4                   |
|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| Rat No. ( $\times 10^6$ ) | Rat No. ( $\times 10^6$ ) | Rat No. ( $\times 10^6$ ) | Rat No. ( $\times 10^6$ ) | Rat No. ( $\times 10^6$ ) |
| 811 8.2                   | 609 4.8                   | 409 6.3                   | 209 3.4                   | 9 4.9                     |
| 812 7.8                   | 610 8.4                   | 410 6.0                   | 210 6.6                   | 10 7.3                    |
| 813 7.0                   | 611 7.4                   | 411 2.6                   | 211 7.5                   | 11 3.2                    |
| 814 7.3                   | 612 7.4                   | 412 7.2                   | 212 7.2                   | 12 8.6                    |
| 815 8.0                   | 613 8.4                   | 413 4.8                   | 213 8.0                   | 13 0.7                    |
| 816 3.9                   | 614 7.0                   | 414 2.8                   | 214 8.0                   | 14 7.1                    |
| 817 0.8                   | 615 8.2                   | 415 7.6                   | 215 6.4                   | 15 8.4                    |
| 818 6.9                   | 616 4.4                   | 416 6.9                   | 216 7.0                   | 16 8.4                    |

|           |      |      |      |      |       |
|-----------|------|------|------|------|-------|
| $\bar{X}$ | 6.23 | 7.00 | 5.52 | 6.76 | 6.075 |
| S.E.      | 0.91 | 0.56 | 0.68 | 0.52 | 1.02  |

No statistically significant differences were found between any group.

TABLE 48 - Erythrocyte numbers in control and ECD-exposed male rats.

| CONTROL                     |     | GROUP 1                     |     | GROUP 2                     |     | GROUP 3                     |     | GROUP 4                     |     |
|-----------------------------|-----|-----------------------------|-----|-----------------------------|-----|-----------------------------|-----|-----------------------------|-----|
| Rat No. (x10 <sup>6</sup> ) |     | Rat No. (x10 <sup>6</sup> ) |     | Rat No. (x10 <sup>6</sup> ) |     | Rat No. (x10 <sup>6</sup> ) |     | Rat No. (x10 <sup>6</sup> ) |     |
| 854                         | 7.4 | 654                         | 4.8 | 454                         | 8.2 | 254                         | 9.0 | 54                          | 5.6 |
| 855                         | 6.8 | 655                         | 7.2 | 455                         | 8.0 | 255                         | 8.2 | 55                          | 7.4 |
| 856                         | 7.0 | 656                         | 5.7 | 456                         | 6.4 | 256                         | 7.8 | 56                          | 6.6 |
| 857                         | 7.5 | 657                         | 8.0 | 457                         | 7.6 | 257                         | 4.0 | 57                          | 7.4 |
| 858                         | 9.2 | 658                         | 7.0 | 458                         | 8.0 | 258                         | 6.6 | 58                          | 7.4 |
| 859                         | 3.5 | 659                         | 5.8 | 459                         | 4.2 | 259                         | 5.8 | 59                          | 8.2 |
| 860                         | 3.9 | 660                         | 7.8 | 461                         | 7.6 | 260                         | 7.6 | 60                          | 8.2 |
| 861                         | 7.8 | 661                         | 8.6 | 462                         | 8.0 | 261                         | 7.8 | 61                          | 0.8 |
| X                           |     | 6.63                        |     | 6.86                        |     | 7.25                        |     | 7.10                        |     |
| S.E.                        |     | 0.69                        |     | 0.46                        |     | 0.48                        |     | 0.56                        |     |
|                             |     |                             |     |                             |     |                             |     | 6.45                        |     |
|                             |     |                             |     |                             |     |                             |     | 0.86                        |     |

No statistically significant differences were found between any group.

TABLE 49 - Mean erythrocyte volume in control and ECD-exposed female rats.

| CONTROL |    | GROUP 1 |    | GROUP 2 |     | GROUP 3 |     | GROUP 4 |     |
|---------|----|---------|----|---------|-----|---------|-----|---------|-----|
| Rat No. | %  | Rat No. | %  | Rat No. | %   | Rat No. | %   | Rat No. | %   |
| 811     | 55 | 609     | 80 | 409     | 58  | 209     | 104 | 9       | 81  |
| 812     | 50 | 610     | 40 | 410     | 44  | 210     | 55  | 10      | 40  |
| 813     | 46 | 611     | 57 | 411     | -   | 211     | 42  | 11      | 131 |
| 814     | 59 | 612     | 59 | 412     | 99  | 212     | 99  | 12      | 53  |
| 815     | 55 | 613     | 75 | 413     | 71  | - 213   | 45  | 13      | -   |
| 816     | 45 | 614     | 50 | 414     | 126 | 214     | 67  | 14      | 36  |
| 817     | -  | 615     | 47 | 415     | 60  | 215     | 59  | 15      | 51  |
| 818     | 52 | 616     | 86 | 416     | 57  | 216     | -   | 16      | 53  |

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| $\bar{X}$ | 51.71 | 61.75 | 73.57 | 67.28 | 63.57 |
| S.E.      | 1.80  | 5.91  | 10.18 | 32.5  | 12.48 |

No statistically significant differences were found between the group.

TABLE 50 - Mean erythrocyte volume in control and ECD-exposed male rats.

| CONTROL |     | GROUP 1 |    | GROUP 2 |     | GROUP 3 |     | GROUP 4 |    |
|---------|-----|---------|----|---------|-----|---------|-----|---------|----|
| Rat No. | %   | Rat No. | %  | Rat No. | %   | Rat No. | %   | Rat No. | %  |
| 854     | 59  | 654     | 75 | 454     | 61  | 254     | 58  | 54      | 69 |
| 855     | 71  | 655     | 59 | 455     | 62  | 255     | 59  | 55      | 99 |
| 856     | 53  | 656     | 63 | 456     | 48  | 256     | 65  | 56      | 58 |
| 857     | 99  | 657     | 99 | 457     | 62  | 257     | 107 | 57      | 50 |
| 858     | 59  | 658     | 57 | 458     | 93  | 258     | 55  | 58      | 65 |
| 859     | 128 | 659     | 56 | 459     | 100 | 259     | 69  | 59      | 54 |
| 860     | 102 | 660     | 61 | 461     | 56  | 260     | 62  | 60      | 58 |
| 861     | 58  | 661     | 55 | 462     | 61  | 261     | 69  | 61      | -  |

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| $\bar{X}$ | 78.62 | 66.87 | 67.87 | 68.00 | 64.71 |
| S.E.      | 9.74  | 5.05  | 6.49  | 5.85  | 6.20  |

No statistically significant differences were found between the groups.

SL 083202

TABLE 51 - Platelet numbers in control and ECD-exposed female rats.

| CONTROL                   | GROUP 1                   |     | GROUP 2                   |     | GROUP 3                   |     | GROUP 4                   |     |
|---------------------------|---------------------------|-----|---------------------------|-----|---------------------------|-----|---------------------------|-----|
| Rat No. ( $\times 10^3$ ) | Rat No. ( $\times 10^3$ ) |     | Rat No. ( $\times 10^3$ ) |     | Rat No. ( $\times 10^3$ ) |     | Rat No. ( $\times 10^3$ ) |     |
| 811 693                   | 609                       | 705 | 409                       | 330 | 209                       | 300 | 9                         | 231 |
| 812 280                   | 610                       | 527 | 410                       | 400 | 210                       | 440 | 10                        | 442 |
| 813 350                   | 611                       | 270 | 411                       | 231 | 211                       | 200 | 11                        | 270 |
| 814 280                   | 612                       | 573 | 412                       | 250 | 212                       | 350 | 12                        | 580 |
| 815 371                   | 613                       | 360 | 413                       | 500 | 213                       | 404 | 13                        | 761 |
| 816 210                   | 614                       | 617 | 414                       | 715 | 214                       | 280 | 14                        | 225 |
| 817 270                   | 615                       | 317 | 415                       | 412 | 215                       | 280 | 15                        | 305 |
| 818 579                   | 616                       | 690 | 416                       | 213 | 216                       | 620 | 16                        | 500 |

|      |        |        |        |        |        |
|------|--------|--------|--------|--------|--------|
| X    | 380.12 | 507.37 | 381.00 | 359.00 | 414.25 |
| S.E. | 59.44  | 60.27  | 59.39  | 45.91  | 67.87  |

No statistically significant differences were found between the groups.

TABLE 52 - Platelet numbers in control and ECD-exposed male rats

| CONTROL |                     | GROUP 1 |                     | GROUP 2 |                     | GROUP 3 |                     | GROUP 4 |                     |
|---------|---------------------|---------|---------------------|---------|---------------------|---------|---------------------|---------|---------------------|
| Rat No. | (x10 <sup>3</sup> ) | Rat No. | (x10 <sup>3</sup> ) | Rat No. | (x10 <sup>3</sup> ) | Rat No. | (x10 <sup>3</sup> ) | Rat No. | (x10 <sup>3</sup> ) |
| 854     | 441                 | 654     | 720                 | 454     | 612                 | 254     | 761                 | 54      | 206                 |
| 855     | 200                 | 655     | 757                 | 455     | 536                 | 255     | 270                 | 55      | 197                 |
| 856     | 618                 | 656     | 650                 | 456     | 177                 | 256     | 740                 | 56      | 306                 |
| 857     | 698                 | 657     | 877                 | 457     | 680                 | 257     | 439                 | 57      | 366                 |
| 858     | 404                 | 658     | 650                 | 458     | 183                 | 258     | 500                 | 58      | 387                 |
| 859     | 600                 | 659     | 379                 | 459     | 379                 | 259     | 637                 | 59      | 540                 |
| 860     | 271                 | 660     | 397                 | 461     | 312                 | 260     | 430                 | 60      | 510                 |
| 861     | 400                 | 661     | 501                 | 462     | 567                 | 261     | 320                 | 61      | 236                 |

|           |        |        |        |        |       |
|-----------|--------|--------|--------|--------|-------|
| $\bar{X}$ | 454.00 | 616.37 | 430.75 | 512.00 | 343.5 |
| S.E.      | 61.43  | 62.46  | 69.07  | 65.09  | 46.67 |

Statistical analysis :

Group 1 vs 2 :  $P < 0.05$   
 " 1 vs 4 :  $P < 0.005$

SL 083204

TABLE 53- Basophilic leukocytes in control and ECD-exposed female rats.

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % |
| 811     | 0 | 609     | 0 | 409     | 0 | 209     | 0 | 9       | 0 |
| 812     | 0 | 610     | 0 | 410     | 0 | 210     | 0 | 10      | 0 |
| 813     | 0 | 611     | 0 | 411     | 0 | 211     | 0 | 11      | 0 |
| 814     | 0 | 612     | 0 | 412     | 0 | 212     | 0 | 12      | 0 |
| 815     | 0 | 613     | 0 | 413     | 0 | 213     | 0 | 13      | 0 |
| 816     | 0 | 614     | 0 | 414     | 0 | 214     | 0 | 14      | 0 |
| 817     | 0 | 615     | 0 | 415     | 0 | 215     | 0 | 15      | 0 |
| 818     | 0 | 616     | 0 | 416     | 0 | 216     | 0 | 16      | 0 |

IX  
S.E.

No statistically significant differences were found between any group.

SL 083205

TABLE 54 - Basophilic leukocytes in control and ECD-exposed male rats.

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % |
| 854     | 0 | 654     | 0 | 454     | 0 | 254     | 0 | 54      | 0 |
| 855     | 0 | 655     | 0 | 455     | 0 | 255     | 0 | 55      | 0 |
| 856     | 0 | 656     | 0 | 456     | 0 | 256     | 0 | 56      | 0 |
| 857     | 0 | 657     | 0 | 457     | 0 | 257     | 0 | 57      | 0 |
| 858     | 0 | 658     | 0 | 458     | 0 | 258     | 0 | 58      | 0 |
| 859     | 0 | 659     | 0 | 459     | 0 | 259     | 0 | 59      | 0 |
| 860     | 0 | 660     | 0 | 461     | 0 | 260     | 0 | 60      | 0 |
| 861     | 0 | 661     | 0 | 462     | 0 | 261     | 0 | 61      | 0 |

$\bar{X}$   
S.E.

No statistically significant differences were found between any group.

SL 083206

TABLE 55- Eosinophilic leukocytes in control and ECD-exposed female rats

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % |
| 811     | 0 | 609     | 0 | 409     | 0 | 209     | 0 | 9       | 0 |
| 812     | 0 | 610     | 0 | 410     | 0 | 210     | 1 | 10      | 2 |
| 813     | 0 | 611     | 0 | 411     | 1 | 211     | 0 | 11      | 0 |
| 814     | 0 | 612     | 0 | 412     | 0 | 212     | 1 | 12      | 1 |
| 815     | 0 | 613     | 0 | 413     | 1 | 213     | 0 | 13      | 0 |
| 816     | 0 | 614     | 1 | 414     | 2 | 214     | 0 | 14      | 1 |
| 817     | 0 | 615     | 0 | 415     | 0 | 215     | 0 | 15      | 1 |
| 818     | 0 | 616     | 0 | 416     | 0 | 216     | 0 | 16      | 0 |

No statistically significant differences were found between any group.

X  
S.E.

SL 083207

TABLE 56 - Eosinophilic leukocytes in control and ECD-exposed male rats.

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % |
| 854     | 0 | 654     | 0 | 454     | 0 | 254     | 1 | 54      | 0 |
| 855     | 0 | 655     | 0 | 455     | 0 | 255     | 0 | 55      | 0 |
| 856     | 0 | 656     | 0 | 456     | 0 | 256     | 0 | 56      | 0 |
| 857     | 0 | 657     | 2 | 457     | 1 | 257     | 0 | 57      | 0 |
| 858     | 1 | 658     | 0 | 458     | 0 | 258     | 0 | 58      | 0 |
| 859     | 0 | 659     | 0 | 459     | 0 | 259     | 0 | 59      | 1 |
| 860     | 0 | 660     | 0 | 461     | 0 | 260     | 2 | 60      | 0 |
| 861     | 1 | 661     | 0 | 462     | 0 | 261     | 0 | 61      | 0 |

X  
S.E.

SL 083208

TABLE 57 - Segmented neutrophilic leukocytes in control and ECD-exposed female rats.

| CONTROL |    | GROUP 1 |    | GROUP 2 |    | GROUP 3 |    | GROUP 4 |    |
|---------|----|---------|----|---------|----|---------|----|---------|----|
| Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  |
| 811     | 20 | 609     | 12 | 409     | 8  | 209     | 7  | 9       | 11 |
| 812     | 9  | 610     | 7  | 410     | 7  | 210     | 16 | 10      | 17 |
| 813     | 5  | 611     | 8  | 411     | 7  | 211     | 7  | 11      | 10 |
| 814     | 9  | 612     | 26 | 412     | 10 | 212     | 23 | 12      | 2  |
| 815     | 10 | 613     | 12 | 413     | 20 | 213     | 36 | 13      | 15 |
| 816     | 10 | 614     | 19 | 414     | 5  | 214     | 12 | 14      | 28 |
| 817     | 11 | 615     | 10 | 415     | 4  | 215     | 12 | 15      | 10 |
| 818     | 13 | 616     | 12 | 416     | 9  | 216     | 8  | 16      | 16 |

|           |       |       |      |       |        |
|-----------|-------|-------|------|-------|--------|
| $\bar{X}$ | 10.87 | 13.37 | 8.75 | 15.12 | 13.625 |
| S.E.      | 1.53  | 2.33  | 1.75 | 3.54  | 2.65   |

No statistically significant differences were found between the groups.

TABLE 58 - Segmented neutrophilic leukocytes in control and ECD-exposed male rats.

| CONTROL |    | GROUP 1 |    | GROUP 2 |    | GROUP 3 |    | GROUP 4 |    |
|---------|----|---------|----|---------|----|---------|----|---------|----|
| Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  |
| 854     | 17 | 654     | 2  | 454     | 1  | 254     | 15 | 54      | 6  |
| 855     | 16 | 655     | 2  | 455     | 9  | 255     | 13 | 55      | 15 |
| 856     | 17 | 656     | 11 | 456     | 35 | 256     | 18 | 56      | 7  |
| 857     | 31 | 657     | 12 | 457     | 9  | 257     | 12 | 57      | 3  |
| 858     | 19 | 658     | 11 | 458     | 1  | 258     | 15 | 58      | 26 |
| 859     | 18 | 659     | 14 | 459     | 14 | 259     | 19 | 59      | 20 |
| 860     | 20 | 660     | 10 | 461     | 27 | 260     | 12 | 60      | 11 |
| 861     | 9  | 661     | 2  | 462     | 19 | 261     | 13 | 61      | 12 |

|      |       |      |       |       |       |
|------|-------|------|-------|-------|-------|
| X    | 18.37 | 8.00 | 14.37 | 14.62 | 12.50 |
| S.E. | 2.15  | 1.80 | 4.24  | 0.94  | 2.70  |

Statistical analysis : Group C vs 1 :  $P < 0.005$

SL 083210

TABLE 59 - Non segmented neutrophilic leukocytes in control and ECD-exposed female rats.

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % |
| 811     | 1 | 609     | 0 | 409     | 0 | 209     | 0 | 9       | 0 |
| 812     | 0 | 610     | 0 | 410     | 0 | 210     | 0 | 10      | 0 |
| 813     | 0 | 611     | 0 | 411     | 0 | 211     | 0 | 11      | 0 |
| 814     | 0 | 612     | 0 | 412     | 0 | 212     | 0 | 12      | 0 |
| 815     | 0 | 613     | 0 | 413     | 0 | 213     | 0 | 13      | 0 |
| 816     | 0 | 614     | 0 | 414     | 0 | 214     | 1 | 14      | 0 |
| 817     | 0 | 615     | 0 | 415     | 0 | 215     | 0 | 15      | 0 |
| 818     | 0 | 616     | 0 | 416     | 0 | 216     | 0 | 16      | 0 |

$\bar{X}$   
S.E.

No statistically significant differences were found between any group.

SL 083211

TABLE 60 - Non segmented neutrophilic leukocytes in control and ECD- exposed male rats.

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % |
| 854     | 0 | 654     | 0 | 454     | 0 | 254     | 0 | 54      | 0 |
| 855     | 0 | 655     | 0 | 455     | 0 | 255     | 2 | 55      | 0 |
| 856     | 0 | 656     | 0 | 456     | 0 | 256     | 0 | 56      | 0 |
| 857     | 0 | 657     | 0 | 457     | 0 | 257     | 1 | 57      | 0 |
| 858     | 1 | 658     | 0 | 458     | 0 | 258     | 0 | 58      | 1 |
| 859     | 0 | 659     | 0 | 459     | 0 | 259     | 0 | 59      | 0 |
| 860     | 0 | 660     | 0 | 461     | 0 | 260     | 0 | 60      | 0 |
| 861     | 0 | 661     | 0 | 462     | 0 | 261     | 0 | 61      | 0 |

IX  
S.E.

SL 083212

TABLE 61 - Lymphocyte percentage in control and ECD-exposed female rats.

| CONTROL |    | GROUP 1 |    | GROUP 2 |    | GROUP 3 |    | GROUP 4 |    |
|---------|----|---------|----|---------|----|---------|----|---------|----|
| Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  |
| 811     | 79 | 609     | 88 | 409     | 92 | 209     | 93 | 9       | 89 |
| 812     | 90 | 610     | 93 | 410     | 93 | 210     | 81 | 10      | 81 |
| 813     | 95 | 611     | 92 | 411     | 92 | 211     | 93 | 11      | 90 |
| 814     | 90 | 612     | 73 | 412     | 90 | 212     | 76 | 12      | 94 |
| 815     | 89 | 613     | 88 | 413     | 79 | 213     | 64 | 13      | 85 |
| 816     | 90 | 614     | 80 | 414     | 93 | 214     | 87 | 14      | 71 |
| 817     | 89 | 615     | 89 | 415     | 96 | 215     | 88 | 15      | 89 |
| 818     | 87 | 616     | 87 | 416     | 91 | 216     | 92 | 16      | 84 |

|           |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|
| $\bar{X}$ | 88.62 | 86.25 | 90.75 | 84.25 | 85.37 |
| S.E.      | 1.59  | 2.34  | 1.79  | 3.59  | 2.50  |

No statistically significant differences were found between any group.

TABLE 62 - Lymphocyte percentage in control and ECD-exposed male rats.

| CONTROL |    | GROUP 1 |    | GROUP 2 |    | GROUP 3 |    | GROUP 4 |    |
|---------|----|---------|----|---------|----|---------|----|---------|----|
| Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  | Rat No. | %  |
| 854     | 82 | 654     | 98 | 454     | 98 | 254     | 85 | 54      | 94 |
| 855     | 84 | 655     | 98 | 455     | 91 | 255     | 84 | 55      | 83 |
| 856     | 83 | 656     | 88 | 456     | 65 | 256     | 80 | 56      | 93 |
| 857     | 68 | 657     | 86 | 457     | 85 | 257     | 86 | 57      | 97 |
| 858     | 79 | 658     | 88 | 458     | 99 | 258     | 85 | 58      | 72 |
| 859     | 92 | 659     | 86 | 459     | 86 | 259     | 81 | 59      | 89 |
| 860     | 80 | 660     | 90 | 461     | 73 | 260     | 85 | 60      | 88 |
| 861     | 90 | 661     | 87 | 462     | 81 | 261     | 87 | 61      | 88 |

|           |       |        |       |        |       |
|-----------|-------|--------|-------|--------|-------|
| $\bar{X}$ | 82.25 | 90.125 | 84.75 | 84.125 | 88.00 |
| S.E.      | 2.59  | 1.77   | 4.14  | 0.85   | 2.75  |

No statistically significant differences were found between any group.

SL 083214

TABLE 63 - Monocyte percentage in control and ECD-exposed female rats.

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % |
| 811     | 0 | 609     | 0 | 409     | 0 | 209     | 0 | 9       | 0 |
| 812     | 1 | 610     | 0 | 410     | 0 | 210     | 2 | 10      | 0 |
| 813     | 0 | 611     | 0 | 411     | 0 | 211     | 0 | 11      | 0 |
| 814     | 1 | 612     | 0 | 412     | 0 | 212     | 0 | 12      | 3 |
| 815     | 1 | 613     | 0 | 413     | 0 | 213     | 0 | 13      | 0 |
| 816     | 0 | 614     | 0 | 414     | 0 | 214     | 0 | 14      | 0 |
| 817     | 1 | 615     | 1 | 415     | 0 | 215     | 0 | 15      | 0 |
| 818     | 0 | 616     | 7 | 416     | 0 | 216     | 0 | 16      | 0 |

X  
S.E.

No statistically significant differences were found between any group.

SL 083215

TABLE 67 - Urinary albumin in control and ECD-exposed female rats.

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. |   | Rat No. |   | Rat No. |   | Rat No. |   | Rat No. |   |
| 811     | 0 | 609     | 1 | 409     | 0 | 209     | 1 | 9       | 3 |
| 812     | 2 | 610     | 1 | 410     | 0 | 210     | 1 | 10      | 0 |
| 813     | 1 | 611     | 1 | 411     | 1 | 211     | 1 | 11      | 1 |
| 814     | 0 | 612     | 2 | 412     | 1 | 212     | 2 | 12      | 1 |
| 815     | 0 | 613     | 1 | 413     | 1 | 213     | 1 | 13      | 1 |
| 816     | 1 | 614     | 1 | 414     | 0 | 214     | 0 | 14      | 1 |
| 817     | 1 | 615     | 1 | 415     | 0 | 215     | 1 | 15      | 3 |
| 818     | 0 | 616     | - | 416     | 1 | 216     | 1 | 16      | 0 |

$\bar{X}$                       0.55                                      1.14                                      0.5                                      1.00                                      1.25  
S.E.

0 = absent; 1 = traces; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

TABLE 64 - Monocyte percentage in control and ECD-exposed male rats.

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % | Rat No. | % |
| 854     | 1 | 654     | 0 | 454     | 1 | 254     | 0 | 54      | 0 |
| 855     | 0 | 655     | 0 | 455     | 0 | 255     | 1 | 55      | 2 |
| 856     | 0 | 656     | 1 | 456     | 0 | 256     | 2 | 56      | 0 |
| 857     | 1 | 657     | 0 | 457     | 5 | 257     | 1 | 57      | 0 |
| 858     | 0 | 658     | 1 | 458     | 0 | 258     | 0 | 58      | 0 |
| 859     | 0 | 659     | 0 | 459     | 0 | 259     | 0 | 59      | 0 |
| 860     | 0 | 660     | 0 | 461     | 0 | 260     | 1 | 60      | 1 |
| 861     | 0 | 661     | 1 | 462     | 0 | 261     | 0 | 61      | 0 |

$\bar{X}$   
S.E.

SL 083217

TABLE 65 - Urinary erythrocyte in control and ECD-exposed female rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 811 0   | 609 0   | 409 0   | 209 0   | 9 0     |
| 812 0   | 610 1   | 410 0   | 210 0   | 10 0    |
| 813 1   | 611 0   | 411 0   | 211 0   | 11 0    |
| 814 3   | 612 1   | 412 0   | 212 0   | 12 1    |
| 815 0   | 613 0   | 413 0   | 213 0   | 13 0    |
| 816 1   | 614 1   | 414 0   | 214 1   | 14 0    |
| 817 0   | 615 0   | 415 0   | 215 0   | 15 0    |
| 818 0   | 616 -   | 416 0   | 216 0   | 16 0    |

$\bar{X}$  0.555 0.428 0 0.125 0.125  
 S.E.

0 = Absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083218

TABLE 66 - Urinary erythrocytes in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 0   | 654 0   | 454 1   | 254 0   | 54 -    |
| 855 0   | 655 1   | 455 1   | 255 0   | 55 1    |
| 856 0   | 656 0   | 456 -   | 256 0   | 56 0    |
| 857 0   | 657 -   | 457 0   | 257 0   | 57 1    |
| 858 0   | 658 0   | 458 0   | 258 0   | 58 0    |
| 859 0   | 659 1   | 459 0   | 259 0   | 59 0    |
| 860 0   | 660 1   | 461 0   | 260 0   | 60 0    |
| 861 0   | 661 0   | 462 1   | 261 0   | 61 0    |

$\bar{X}$                       0                      0.428                      0.428                      0                      0.285  
 S.E.

0 = absent ; 1= traces; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083219

TABLE 68 - Urinary albumin in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 1   | 654 1   | 454 1   | 254 1   | 54 -    |
| 855 3   | 655 0   | 455 1   | 255 2   | 55 3    |
| 856 1   | 656 3   | 456 -   | 256 1   | 56 3    |
| 857 1   | 657 -   | 457 2   | 257 1   | 57 3    |
| 858 0   | 658 0   | 458 1   | 258 1   | 58 0    |
| 859 3   | 659 1   | 459 2   | 259 1   | 59 2    |
| 860 2   | 660 0   | 461 2   | 260 3   | 60 2    |
| 861 1   | 661 1   | 462 1   | 261 1   | 61 2    |

$\bar{X}$  1.50 0.87 1.41 1.37 2.14  
 S.E.

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

TABLE 69 - Urinary sugar in control and ECD-exposed female rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 811 0   | 609 1   | 409 0   | 209 0   | 9 0     |
| 812 0   | 610 0   | 410 0   | 210 1   | 10 0    |
| 813 0   | 611 1   | 411 0   | 211 0   | 11 0    |
| 814 0   | 612 1   | 412 0   | 212 0   | 12 0    |
| 815 0   | 613 1   | 413 0   | 213 0   | 13 0    |
| 816 0   | 614 1   | 414 0   | 214 0   | 14 0    |
| 817 0   | 615 0   | 415 0   | 215 0   | 15 0    |
| 818 0   | 616 -   | 416 0   | 216 0   | 16 0    |

$\bar{X}$  0 0.571 0 0.125 0  
S.E.

0 = absent; 1 = traces ; 2 = discrete quantities; 3 = high quantity; 4 = very high quantity.

TABLE 70 - Urinary sugar in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 0   | 654 0   | 454 0   | 254 0   | 54 0    |
| 855 0   | 655 0   | 455 1   | 255 0   | 55 0    |
| 856 0   | 656 0   | 456 -   | 256 0   | 56 0    |
| 857 0   | 657 -   | 457 0   | 257 -   | 57 0    |
| 858 0   | 658 0   | 458 0   | 258 0   | 58 0    |
| 859 0   | 659 0   | 459 0   | 259 0   | 59 0    |
| 860 0   | 660 0   | 461 1   | 260 0   | 60 0    |
| 861 0   | 661 0   | 462 1   | 261 0   | 61 0    |

X  
S.E.

0 0 0.428 0 0

0 = absent ; 1 = traces ; 2 = discrete quantities; 3 = high quantity ; 4 = very high quantity.

SL 083222

TABLE 71 - Urinary ketone bodies in control and ECD-exposed female rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 811 1   | 609 0   | 409 0   | 209 0   | 9 0     |
| 812 0   | 610 0   | 410 0   | 210 0   | 10 0    |
| 813 0   | 611 0   | 411 0   | 211 0   | 11 0    |
| 814 0   | 612 1   | 412 0   | 212 0   | 12 0    |
| 815 0   | 613 0   | 413 0   | 213 0   | 13 0    |
| 816 0   | 614 0   | 414 0   | 214 0   | 14 0    |
| 817 0   | 615 0   | 415 1   | 215 1   | 15 0    |
| 818 1   | 616 -   | 416 0   | 216 0   | 16 0    |

X  
S.E.                      0.22                      0.14                      0.25                      0.25                      0

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

TABLE 72 - Urinary ketone bodies in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 1   | 654 1   | 454 0   | 254 1   | 54 0    |
| 855 0   | 655 0   | 455 1   | 255 0   | 55 0    |
| 856 1   | 656 0   | 456 -   | 256 0   | 56 0    |
| 857 0   | 657 -   | 457 0   | 257 0   | 57 0    |
| 858 0   | 658 0   | 458 0   | 258 0   | 58 0    |
| 859 0   | 659 0   | 459 0   | 259 0   | 59 0    |
| 860 0   | 660 0   | 461 0   | 260 0   | 60 0    |
| 861 0   | 661 0   | 462 1   | 261 0   | 61 0    |

XI  
S.E.                      0.25                      0.14                      0.28                      0.25                      0

0 = absent; 1 = traces; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083224

TABLE 73 - Urinary bilirubin in control and ECD-exposed female rats

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 811 0   | 609 0   | 409 0   | 209 0   | 9 0     |
| 812 0   | 610 0   | 410 0   | 210 0   | 10 0    |
| 813 0   | 611 0   | 411 0   | 211 0   | 11 0    |
| 814 0   | 612 0   | 412 0   | 212 0   | 12 0    |
| 815 0   | 613 0   | 413 0   | 213 0   | 13 0    |
| 816 0   | 614 0   | 414 0   | 214 0   | 14 0    |
| 817 0   | 615 0   | 415 0   | 215 0   | 15 0    |
| 818 0   | 616 0   | 416 0   | 216 0   | 16 0    |

X  
S.E.                      0                      0                      0                      0                      0

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083225

TABLE 74 - Urinary bilirubin in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 0   | 654 0   | 454 0   | 254 0   | 54 0    |
| 855 0   | 655 0   | 455 0   | 255 0   | 55 0    |
| 856 0   | 656 0   | 456 -   | 256 0   | 56 0    |
| 857 0   | 657 -   | 457 0   | 257 0   | 57 0    |
| 858 0   | 658 0   | 458 0   | 258 0   | 58 0    |
| 859 0   | 659 0   | 459 0   | 259 0   | 59 0    |
| 860 0   | 660 0   | 461 0   | 260 0   | 60 0    |
| 861 0   | 661 0   | 462 0   | 261 0   | 61 0    |

$\bar{X}$   
S.E.

0 0 0 0 0

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity; 4 = very high quantity.

SL 083226

TABLE 75 - Urinary casts in control and ECD-exposed female rats

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 811 0   | 609 0   | 409 0   | 209 0   | 9 0     |
| 812 0   | 610 0   | 410 0   | 210 0   | 10 0    |
| 813 0   | 611 0   | 411 0   | 211 0   | 11 0    |
| 814 0   | 612 0   | 412 0   | 212 0   | 12 0    |
| 815 0   | 613 0   | 413 0   | 213 0   | 13 0    |
| 816 0   | 614 0   | 414 0   | 214 0   | 14 0    |
| 817 0   | 615 0   | 415 0   | 215 0   | 15 0    |
| 818 0   | 616 0   | 416 0   | 216 0   | 16 0    |

IX  
S.E.                      0                      0                      0                      0                      0

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083227

TABLE 76 - Urinary casts in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 0   | 654 0   | 454 0   | 254 0   | 54 0    |
| 855 0   | 655 0   | 455 0   | 255 0   | 55 0    |
| 856 0   | 656 0   | 456 -   | 256 0   | 56 0    |
| 857 0   | 657 -   | 457 0   | 257 0   | 57 0    |
| 858 0   | 658 0   | 458 0   | 258 0   | 58 0    |
| 859 0   | 659 0   | 459 0   | 259 0   | 59 0    |
| 860 0   | 660 0   | 461 0   | 260 0   | 60 0    |
| 861 0   | 661 0   | 462 0   | 261 0   | 61 0    |

IX  
S.E.

0 0 0 0 0  
0 = absent; 1 = traces ; 2 = discrete quantities ; 3 = high quantity; 4 = very high quantity.

SL 083228

TABLE 77 - Urinary leukocytes in control and ECD-exposed female rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 811 0   | 609 1   | 409 0   | 209 1   | 9 0     |
| 812 0   | 610 0   | 410 0   | 210 0   | 10 0    |
| 813 1   | 611 1   | 411 1   | 211 1   | 11 0    |
| 814 1   | 612 1   | 412 0   | 212 1   | 12 1    |
| 815 1   | 613 1   | 413 0   | 213 1   | 13 0    |
| 816 1   | 614 0   | 414 0   | 214 1   | 14 0    |
| 817 0   | 615 1   | 415 1   | 215 0   | 15 0    |
| 818 0   | 616 -   | 416 0   | 216 1   | 16 1    |

$\bar{X}$  0.44 0.71 0.25 0.75 0.25  
S.E.

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

TABLE 78 - Urinary leukocytes in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 0   | 654 0   | 454 0   | 254 0   | 54 -    |
| 855 0   | 655 0   | 455 1   | 255 1   | 55 0    |
| 856 0   | 656 0   | 456 -   | 256 0   | 56 0    |
| 857 0   | 657 -   | 457 1   | 257 1   | 57 0    |
| 858 0   | 658 0   | 458 0   | 258 0   | 58 0    |
| 859 0   | 659 0   | 459 1   | 259 0   | 59 0    |
| 860 1   | 660 0   | 461 0   | 260 0   | 60 0    |
| 861 0   | 661 1   | 462 0   | 261 0   | 61 1    |

X  
S.E.

0.125

0.14

0.42

0.25

0.125

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083230

TABLE 79 - Urinary crystals in control and ECD-exposed female rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 811 1   | 609 1   | 409 1   | 209 2   | 9 2     |
| 812 1   | 610 2   | 410 0   | 210 3   | 10 1    |
| 813 1   | 611 2   | 411 2   | 211 1   | 11 3    |
| 814 1   | 612 3   | 412 2   | 212 1   | 12 1    |
| 815 1   | 613 3   | 413 3   | 213 1   | 13 1    |
| 816 1   | 614 1   | 414 3   | 214 1   | 14 2    |
| 817 2   | 615 1   | 415 2   | 215 1   | 15 3    |
| 818 3   | 616 -   | 416 2   | 216 1   | 16 0    |

$\bar{X}$  1.33 2.00 2.00 1.375 1.625  
S.E.

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

TABLE 80 - Urinary crystals in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 2   | 654 1   | 454 2   | 254 1   | 54 -    |
| 855 1   | 655 1   | 455 1   | 255 1   | 55 1    |
| 856 3   | 656 1   | 456 -   | 256 1   | 56 1    |
| 857 1   | 657 -   | 457 1   | 257 3   | 57 1    |
| 858 2   | 658 1   | 458 2   | 258 2   | 58 1    |
| 859 1   | 659 2   | 459 2   | 259 1   | 59 2    |
| 860 1   | 660 0   | 461 1   | 260 2   | 60 1    |
| 861 2   | 661 3   | 462 1   | 261 3   | 61 1    |

$\bar{X}$   
 S.E.
 

|       |       |       |      |       |
|-------|-------|-------|------|-------|
| 0.625 | 1.285 | 1.428 | 1.75 | 1.142 |
|-------|-------|-------|------|-------|

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity; 4 = very high quantity.

SL 083232

TABLE 81 - Urinary mucus in control and ECD-exposed female rats.

| CONTROL |   | GROUP 1 |   | GROUP 2 |   | GROUP 3 |   | GROUP 4 |   |
|---------|---|---------|---|---------|---|---------|---|---------|---|
| Rat No. |   | Rat No. |   | Rat No. |   | Rat No. |   | Rat No. |   |
| 811     | 0 | 609     | 1 | 409     | 1 | 209     | 1 | 9       | 0 |
| 812     | 1 | 610     | 1 | 410     | 0 | 210     | 1 | 10      | 0 |
| 813     | 1 | 611     | 1 | 411     | 1 | 211     | 0 | 11      | 1 |
| 814     | 1 | 612     | 1 | 412     | 2 | 212     | 1 | 12      | 0 |
| 815     | 0 | 613     | 1 | 413     | 1 | 213     | 1 | 13      | 0 |
| 816     | 1 | 614     | 1 | 414     | 0 | 214     | 0 | 14      | 1 |
| 817     | 3 | 615     | 1 | 415     | 1 | 215     | 1 | 15      | 0 |
| 818     | 1 | 616     | - | 416     | 0 | 216     | 1 | 16      | 1 |

$\bar{X}$  0.888 1.00 0.75 0.75 0.866  
S.E.

absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083233

TABLE 82 - Urinary mucus in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 0   | 654 0   | 454 1   | 254 1   | 54 -    |
| 855 1   | 655 1   | 455 1   | 255 0   | 55 1    |
| 856 0   | 656 1   | 456 -   | 256 1   | 56 1    |
| 857 0   | 657 -   | 457 1   | 257 4   | 57 1    |
| 858 1   | 658 0   | 458 3   | 258 1   | 58 0    |
| 859 1   | 659 1   | 459 1   | 259 1   | 59 1    |
| 860 1   | 660 0   | 461 0   | 260 1   | 60 1    |
| 861 0   | 661 1   | 462 1   | 261 1   | 61 1    |

$\bar{X}$   
S.E.

0.50

0.571

0.142

1.25

0.857

0 = absent ; 1 = traces; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083234

TABLE 83 - Urinary epithelial cells in control and ECD-exposed female rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 811 0   | 609 1   | 409 0   | 209 0   | 9 1     |
| 812 0   | 610 0   | 410 0   | 210 0   | 10 0    |
| 813 0   | 611 0   | 411 0   | 211 0   | 11 0    |
| 814 0   | 612 0   | 412 0   | 212 0   | 12 0    |
| 815 0   | 613 1   | 413 0   | 213 0   | 13 0    |
| 816 0   | 614 0   | 414 0   | 214 0   | 14 0    |
| 817 0   | 615 0   | 415 0   | 215 0   | 15 0    |
| 818 0   | 616 0   | 416 0   | 216 0   | 16 1    |

X 0 0.25 0 0 0.25  
S.E. 0.16 0.16

0 = absent; 1 = traces; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083235

TABLE 84 - Urinary epithelial cells in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 0   | 654 0   | 454 0   | 254 0   | 54 -    |
| 855 0   | 655 1   | 455 0   | 255 0   | 55 1    |
| 856 0   | 656 0   | 456 -   | 256 0   | 56 0    |
| 857 0   | 657 -   | 457 0   | 257 0   | 57 0    |
| 858 0   | 658 0   | 458 0   | 258 0   | 58 0    |
| 859 0   | 659 0   | 459 1   | 259 0   | 59 1    |
| 860 0   | 660 0   | 461 0   | 260 0   | 60 0    |
| 861 1   | 661 0   | 462 1   | 261 0   | 61 0    |

X  
S.E.

0.25

0.14

0.42

0

0.28

0 = absent; 1 = traces ; 2 = discrete quantities; 3 = high quantity; 4 = very high quantity.

SL 083236

TABLE 85 - Urinary microorganisms in control and ECD-exposed female rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 811 3   | 609 1   | 409 3   | 209 3   | 9 2     |
| 812 3   | 610 1   | 410 2   | 210 1   | 10 3    |
| 813 3   | 611 1   | 411 3   | 211 2   | 11 3    |
| 814 3   | 612 1   | 412 3   | 212 3   | 12 3    |
| 815 3   | 613 2   | 413 1   | 213 3   | 13 3    |
| 816 3   | 614 1   | 414 2   | 214 2   | 14 3    |
| 817 3   | 615 3   | 415 3   | 215 3   | 15 3    |
| 818 3   | 616 -   | 416 3   | 216 3   | 16 3    |

$\bar{X}$  3.00 1.428 2.50 2.50 2.87  
 S.E.

0 = absent ; 1 = traces ; 2 = discrete quantities ; 3 = high quantity ; 4 = very high quantity.

SL 083237

TABLE 86 - Urinary microorganisms in control and ECD-exposed male rats.

| CONTROL | GROUP 1 | GROUP 2 | GROUP 3 | GROUP 4 |
|---------|---------|---------|---------|---------|
| Rat No. | Rat No. | Rat No. | Rat No. | Rat No. |
| 854 2   | 654 3   | 454 3   | 254 3   | 54 -    |
| 855 3   | 655 3   | 455 1   | 255 3   | 55 3    |
| 856 3   | 656 3   | 456 -   | 256 3   | 56 2    |
| 857 3   | 657 -   | 457 1   | 257 3   | 57 3    |
| 858 3   | 658 3   | 458 1   | 258 3   | 58 3    |
| 859 3   | 659 3   | 459 1   | 259 3   | 59 3    |
| 860 3   | 660 2   | 461 1   | 260 3   | 60 3    |
| 861 3   | 661 3   | 462 2   | 261 3   | 61 3    |

$\bar{X}$  2.875 2.85 1.428 3.00 2.85  
S.E.

0 = absent; 1 = traces ; 2 = discrete quantities; 3 = high quantity; 4 = very high quantity.

SL 083238