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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
National Health and Environmental Effects Research Laboratory
Reproductive Toxicology Division
Research Triangle Park, NC 27711

OFFICE OF
RESEARCH AND DEVELOPMENT

October 2, 2002

MEMORANDUM

SUBJECT: Control vs. PFOA (30 mg/kg) and vaginal cycling,

FROM: Ralph L. Cooper, Ph.D. *Ralph L Cooper 10-2-02*
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TO: Jennifer Seed,
 RAD, OPPT, OPPTS

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This is in response to your question concerning the vaginal cycles displayed by F1 females treated with APFO vs. control. In the F1 generation animals, the vaginal smear pattern present in the control and "high dose" APFO (30 mg/kg) dosed groups were evaluated for cyclicity during a 21 day observation period prior to mating. There were thirty animals per group. The cycles were evaluated as having either regular 4-5 day cycles (R), uneven cycling (IR) (defined as brief periods with irregular pattern) or periods of prolonged diestrus (defined as 4-6 day diestrus periods) extended estrus (defined as 3 or 4 days of cornified smears), possibly pseudopregnant, (PSP, defined as 6-greater days of leukocytes) or persistent estrus (PE, defined as 5-or greater days of cornified smears). These data are summarized in table 1. The two groups were not different in any of the parameters measured.

Table 1 summarized the data

Ovarian Pattern	Type Irregularity	Control	APFO (30mg/kg)
R		18	20
Ri	Total	10	9
"	3 day Estrus	2	1
"	4 day diestrus	2	2
"	no pattern	6	6
PSP		1	
PE		1	1

CONTAIN NO CP

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Finally, the number of cycles in which a **two-day** estrus pattern did appear to be greater in the dosed vs control animals. However, as this pattern can be observed in control animals and the occurrence of this smear pattern is not unusual. Thus, it is concluded that the vaginal cycles in the dosed rats was unaffected by APFO.

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