

03.01-7/16/02-02261

**Jackson, Rodger W. (EFDLANT)**

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**From:** Thornton.Michelle@epamail.epa.gov  
**Sent:** Tuesday, July 16, 2002 5:41 PM  
**To:** dbitterm@ch2m.com; Jackson, Rodger W. (EFDLANT); mcfarlandda@cherrypoint.usmc.mil; Thornton.Michelle@epamail.epa.gov; tsword@theitgroup.com; cobbkw@cherrypoint.usmc.mil; george.lane@ncmail.net; richc@tnus.com; christopherjk@cherrypoint.usmc.mil  
**Subject:** OU15 , EPA HH COMMENTS

HI!

I just received comments from Ted Simon (EPA's HH Risk Assessor) regarding OU15. I have faxed everyone his comments, as I only received a hard copy. Essentially, he concurs with the NFA decision. He also offers a couple of good comments that should be incorporated in this document. As stated in our meeting last week, I will have final comments from all reviewers by the 19th for OU15. Per our Partnering meeting, you have a heads up on what our lawyers comments are for this document- clarification pieces. So, with a little more fine tuning, I think that EPA will be able to concur on the NFA for OU15 sooner than later. I also faxed copies of my comments on OU5, Sites 1 and 2 because I got an e-mail from a team members saying that he could not open it. Hopefully, no one else had this problem.

Thx!

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4

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July 16, 2002

4WD-OTS

MEMORANDUM

SUBJECT: Risk Review Comments,  
Draft Proposed Plan and Draft Record of Decision  
OU-15, Marine Corps Air Station, Cherry Point, NC

FROM: Ted W. Simon, PhD, DABT  
Toxicologist  
Office of Technical Services 

TO: Michelle Thornton  
RPM, FFB

CC: Elmer W. Akin,  
Chief, OTS

Per your request, I have reviewed the subject documents. The question in your request memo dealt with the HI for the adult recreational angler. I had some difficulty with this because I could not find the value for fish ingestion rate in either document. The Region 3 RBC tables provide concentration values in fish tissue corresponding to a cancer risk of 1E-06 and an HQ of 1. However, the fish ingestion rate used in the Region 3 RBC tables is 54 g/day. This is a lot of fish. The Exposure Factors Handbook recommends an RME value of 25 g/day. I recalculated the risk estimate based on 25 g/day using the fish concentration data in Table 2-1 in the ROD.

*The cancer risk from all chemicals was 1E-05 and the HQ from mercury (assumed methylmercury) was less than one.*

As such, I concur with the finding of NFA.

In biological systems, arsenic occurs primarily in the methylated form which is much less toxic than inorganic arsenic. EPA's Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories indicates that 10% of the arsenic concentration should be assumed to be inorganic and the remainder in the organic and less toxic form. For assessing risk of arsenic in fish tissue, concentrations should be multiplied by 10% unless the arsenic in fish tissue is known to be inorganic arsenic. Even if it is assumed that 100% of the arsenic in fish is in the inorganic form, then the risk from all chemicals is 5E-05 and still within the risk range.

### *Specific Comments*

#### **Fish Consumption Exposure**

There was no mention in the proposed plan whether filets or whole fish were collected and analyzed. In addition, I could not find the value used for the fish ingestion rate. Both these items should be added to the document.

#### **COPC List**

There was no COPC list in the proposed plan. The list should be added.

#### **Cancer Risk Comparisons**

The statement that a male will get cancer at a rate of 50% and that a female will get cancer at a rate of 33% should be removed. The comparison between cancer risks calculated at a hazardous waste site and the frequency of all forms of cancer in the US population is not appropriate for this document. The comparison is gratuitous and misleading. The offending text on page 4 of the Proposed Plan and page 2-9 of the ROD should be removed.

#### **Uncertainty Analysis**

On page 2-11 of the ROD, the writer indicates that the 95<sup>th</sup> percentile may exceed the maximum value. I believe what is meant is that the 95% Upper Confidence Limit of the Arithmetic Mean calculated using the Land method may exceed the maximum value. The statement in the document is incorrect. The entire paragraph on pages 2-11 and 2-12 should be removed.

#### **Uncertainty in Arsenic and Iron Risk Assessment**

The last two paragraphs in section 2.8.1.4 about arsenic and lead should be removed. The writer may not be aware that the statements in the ROD about arsenic seems to contradict the report by the National Academy of Science on arsenic. They should be removed. Note that this is not the same issue as the predominant form of arsenic in fish tissue. The paragraph about iron should be removed as well.

Please let me know if you need further help.

T.W. Simon/tws:4WD-OTS:28642/07/16/2/A:\DISK14\JUL02\CHERRYFISH.WPD