UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
61 Forsyth Street, S.W.
Atlanta, Georgia 30303-8960

OCT 16 2012

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Clyde Woodward, President
Environmental Management Services, Inc.
Cavenham Forest Industries, LLC.
Post Office Box 15369
Hattiesburg, Mississippi 39404-5369

Re: Revised Turkey Creek Human Health Risk Assessment Report
Cavenham Forest Industries, LLC.
Gulfport, Mississippi
EPA ID. No. MSD 057 226 961
HSWA Permit Effective Date July 26, 1996

Dear Mr. Woodward:

The Environmental Protection Agency has received the Revised Turkey Creek Human Health Risk Assessment Report (HHRA) dated September 19, 2012, submitted by Cavenham Forest Industries, LLC (CFI), Gulfport, Mississippi. The revised HHRA Report was submitted in response to EPA comments dated July 2012 on the HHRA Report dated March 16, 2012 and the agreements reached during the conference call on August 22, 2012 regarding CFI's draft response dated August 15, 2012.

The HHRA Report evaluated human chemical exposures from eating fish, dermal contact and ingestion of sediment and surface water both for a noncancer hazard index (HI) and life time cancer risk (LCR) for benzo(a)pyrene (BaP) toxic equivalent quotient (TEQ) compounds and Dioxins/Furans TEQ in a recreational setting. The risks categories were biased towards children's health as being at a higher risk. Sixteen different species of fish were collected in Turkey Creek, Bernard Bayou and Old Fort Bayou (the background location used by Mississippi Department of Environmental Quality (MDEQ).

The noncancer risk (health effects for target organs) from dermal exposure to surface water by swimming and contact with sediments was well below the hazard index (HI) of 1. Greater than 1 indicates a higher risk and concern. The LCR from incidental ingestion of water/sediment and dermal exposure was less than 1.5E-06. The consumption of fish had one exceedance of HI 1 for a noncancer risk for the Blue Catfish. While the noncancer risk for consumption of Stripped Mullet had a HI of 4.4 in Old Fort Bayou it exceeded the HI 1 at the background sampling location. The overall cancer risk for fish tissue consumption is in the risk range of 1.5E-06 to 2.4E-05. The range of the average LCR for fish consumption at the background sampling location in Old Fort Bayou (12 miles from Turkey Creek) and Bernard Bayou is from 1.7E-05 to1.9E-06. The highest concentration in Bernard Bayou was just downstream from the confluence of Turkey Creek.

The location specific hazards for a child consuming Blue Catfish at Turkey Creek Adjacent to/Downstream of Site, is slightly above 1.

Upstream & Adjacent to the Site in Turkey Creek; Upstream & downstream in Bayou Bernard
Cancer risks (average of all fish): **1.9E-06 and 1.2E-05** (within EPA's acceptable risk range)
Noncancer hazards (average of all fish): **HI = less than 1**

Highest cancer risk (Striped Mullet @ Turkey Creek-adjacent)= 9.3E-05
Highest non-cancer HI (Blue Catfish @ Turkey Creek adjacent) =1.1; main COC is dioxin TEQ

Background
Cancer risks (average of all fish): **1.7E-05 and 1.8E-05 (within EPA's acceptable risk range)**
Noncancer hazards (average of all fish): **HI = less than 1**

Highest cancer risk (striped mullet) = 9.7E-05
Highest non-cancer HI (striped mullet) =4.4; main COC is dioxin TEQ

The sum of the cancer risks for adult/child is 1.5E-06 (within EPA's acceptable risk range of 1E-06 to 1E-04). The sum of the noncancer hazards for the child is 0.002 (less than HI=1).

In conclusion, EPA agrees with the findings of CFI that the overall average risks are within the acceptable risk range. There are no significant risks to human health in the consumption of fish tissue in Turkey Creek and Bernard Bayou. The ingestion and dermal contact of PAH TEQ and Dioxin TEQ found in fish tissue, sediment and surface water from Turkey Creek and Bernard Bayou do not present a significant noncancer and/or cancer risk to human health at this time. The Turkey Creek Human Health Risk Assessment Report is hereby approved.

For questions regarding this letter, please contact James H. Smith, Corrective Action Specialist, Corrective Action Section, 404-562-8502 or by electronic mail at smith.jamesh@epa.gov or Russ McLean Acting Section Chief at 404-562-8504 or by electronic mail at mclean.russ@epa.gov.

Sincerely,

Russ McLean, Acting Chief
Corrective Action Section
Restoration and Underground Storage Tank Branch
RCRA Division

cc: Ebony Allen, MDEQ

F: Final HHRA Report 092312 101212
SMITH MCLEAN
12/14/12