

### 3.2.1 Developmental Toxicity

#### Developmental Neurotoxicity

[new paragraph to be inserted after line 39 as a final paragraph to this section and placed before the section heading “Developmental Toxicity” as follows:

Looking across all developmental neurotoxicity studies, the SAB made two additional observations about the existing data: (1) the existing studies have significant exposure gaps in brain development. Among the prenatal studies, there are exposures from GD14-17 (Brown et al., 2007, McCallister et al., 2008) but earlier and later exposure period BaP exposure studies could not be found. Among postnatal studies, there are exposures from PND 5-11 (Chen et al. 2012) and PND 0-14 (Bouayed 2009) but later exposure period BaP studies could not be found. This leaves major gaps in exposure periods from implantation (GD 6) to GD 14 and from GD 18-22. Similarly, for postnatal brain development there is a gap from PND 14-21. In the absence of studies with exposures spanning these missing stages of brain development it is not possible to rule-out the possibility of other, yet unknown, developmental neurotoxic effects. (2) No studies were identified that assessed the effect of continuous exposure from implantation through parturition and lactation up to the age of weaning. The SAB notes that in the absence of data with chronic developmental gestational and lactational exposure, it is not possible to rule-out the possibility that other developmental neurotoxic effects may occur. These gaps should be considered by the Agency in the overall evaluation of BaP developmental neurotoxicity. The significance of the gaps in terms of identifying effect levels lower than that reported by Chen et al. 2012 (0.02 and 0.2 mg/kg/day) is a matter of debate.