smoking can have a depressant effect on the EEG profile.<sup>24</sup> When smokers are under conditions of low arousal induced by mild sensory isolation, cigarette smoking can have a stimulant effect.<sup>25</sup> In other words, smoking appears to have a relaxing effect in stressful situations and a stimulating effect in otherwise nonstimulating circumstances.

Smoking or the administration of nicotine appears to have mixed results in its effects on sustained attention.<sup>26</sup> The tobacco industry has conducted several studies on nicotine's effect on performance and cognition. While some studies showed increased performance and response,<sup>27</sup> others showed little or no effect.<sup>28</sup> Many of these studies were conducted with nicotine-deprived subjects, and the results may reflect the reversal of deficiencies caused by nicotine withdrawal. The 1988 Surgeon General's Report concluded that "[a]fter smoking cigarettes or receiving nicotine, smokers perform better on some cognitive tasks . . . than they do when deprived of cigarettes or nicotine. However, smoking and nicotine do not improve general learning."<sup>29</sup> (An extensive discussion of the physiological and central nervous system

<sup>&</sup>lt;sup>24</sup> See Pritchard, note 23, supra, at pp. 485-490.

<sup>&</sup>lt;sup>25</sup> Golding J, Mangan GL. Arousing and de-arousing effects of cigarette smoking under conditions of stress and mild sensory isolation. *Psychophysiology*. 1982;19(4):449-56.

<sup>&</sup>lt;sup>26</sup> Heishman SJ, Taylor RC, Henningfield JE. Nicotine and smoking: A review of effects on human performance. *Experimental and Clinical Psychopharmacology*. 1994;2(4):345-395.

<sup>&</sup>lt;sup>27</sup> See:

Wesnes K, Warburton DM. Effects of smoking on rapid information processing performance. *Neuropsychobiology.* 1983;9:223-229.

Wesnes K, Warburton DM. Effects of scopolamine and nicotine on human rapid information processing performance. *Psychopharmacology*. 1984;82:147-150.

<sup>&</sup>lt;sup>28</sup> See Heishman et al, note 26, supra.

<sup>&</sup>lt;sup>29</sup> Surgeon General's Report. 1988. Nicotine Addiction. Page 441.