

**ATTACHMENT**  
**“5”**

## 2002 FDA Science Forum Poster Abstracts

### Board L-02

#### Carbon Monoxide-Treated Tuna with High Histamine Levels

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A February 2001 consumer complaint of histamine-related illness from the Las Vegas, NV, Washoe County Health Department triggered FDA action. The SAN-DO laboratory analyzed Tasteless Smoke treated yellowfin tuna steaks. All 18 subs were found to be decomposed, with eight subs over FDA's Defect Action Level of 50 ppm of histamine. Levels ranged from 51-258 ppm.

Carbon monoxide-treated and "tasteless smoke"-treated tuna products typically appear highly desirable, usually a brighter watermelon-red in color rather than the usual burgundy color of fresh or fresh-frozen tuna. The appearance can hide decomposition including significant levels of histamine. Since February 2001 SAN-DO has analyzed 106 treated tuna products imported through California ports and found 28 samples with histamine levels above the current guideline. Seven of these had histamine levels greater than FDA's poisonous action level for tuna of 500 ppm, ranging up to 2060 ppm. The high levels of histamine in a product that visually appears to be of superior quality indicate a considerable risk to consumers of CO-treated tuna.