Salazar Consulting Group, Inc.

A professional team of engineers, industrial hygienists, safety experts, physicians, and health scientists.

Indoor Environmental Quality Evaluations Environmental and Medical Monitoring EPA/OSHA Compliance Expert Testimony Hazardous Waste Control Hazard Communication Safety Evaluations Training

April 27, 2007

Mr. Jeffrey S. Moquin
Director
Risk Management Department
The School Board of Broward County
7770 West Oakland Park Boulevard
Sunrise, Florida 33351-6750

RE: Limited Indoor Environmental Quality Assessment – October 4, 2002 Technology & Support Services Center 7720 West Oakland Park Boulevard Sunrise, Florida 33351 SCG File No.: 1031.46

Dear Mr. Moquin:

Salazar Consulting Group, Inc. (SCG; at the time doing business by the name of Salazar & Spaul Environmental Consultants, Inc.) performed a Limited Indoor Environmental Quality Assessment at the aforementioned facility on October 4, 2002. Indoor assessment activities focused within the third floor Accounting Department, and included only observations of indoor work areas, observations of the ventilation air handling unit servicing complaint areas, and measurements of environmental parameters to include temperature, relative humidity, and carbon dioxide levels from indoor and outdoor locations. Outdoor assessment activities focused on observations of fireproofing materials lining building parking deck surfaces at entrance to the facility. A formal report documenting observed conditions and recommending corrective measures was not requested nor submitted prior to preparation of this correspondence.

Complaints from occupants of the Accounting Department were limited to reported temperature variations (too hot or too cold), lack of fresh air, and diagnoses of several women employees with similar adverse health outcomes (breast cancers). Limited observations of general indoor areas of the Accounting Department revealed conditions to be generally unremarkable, but with several foliage plants displayed. Observations of Air Handling Unit No. 4, which reportedly services the Accounting Department, revealed slight accumulations of dust/debris on internal insulative (closed-cell) materials, and biofilm developed on the surface of stagnant water available within the condensate drain pan. Nonetheless, observed conditions were generally unremarkable, typical for ventilation system units in operation, and considered routine maintenance-type issues, but cleaning/sanitizing of settled dust/debris and verifying proper drainage of the respective condensate drain pan should have been provided.

Measurements of environmental parameters within Accounting Department areas revealed indoor temperature levels to range from 74.6 degrees Fahrenheit (°F) to 75.4 °F. relative humidity levels ranged from 42.8 percent (%) to 46.8 %, and carbon dioxide levels ranged from 920 parts carbon dioxide per million parts air (ppm) to 1086 ppm. Outdoor temperature, relative humidity, and carbon dioxide levels were detected at 85.7 °F, 79.0 %, and 342 ppm, respectively. Please be advised that the American Society of Heating, Refrigerating, Air-Conditioning Engineers, Inc. (ASHRAE) recommends maintenance of indoor temperatures between 69.0 °F and 79.0 °F, relative humidity levels below 60.0 %, and carbon dioxide levels below 700 ppm in excess of that outdoors. Given these guidelines, indoor temperatures and relative humidity levels detected within indoor areas of the Accounting Department remained in compliance with ASHRAE's recommendations. Carbon dioxide levels, however, slightly exceeded the 1042 ppm maximum (calculated using the outdoor concentration of 342 ppm detected on the date of assessment) within Payroll (1086 ppm), Grants/Contracts (1043 ppm), and General Accounting (1071 ppm) areas. However, the slightly elevated levels remained well below the Occupational Safety and Health Administration Permissible Exposure Level (OSHA-PEL) of 5000 ppm, and therefore only identified opportunities for ventilation system improvements (verifying adequate introduction of fresh outdoor air, effective air circulation, etc.) and not respective exposure hazards.

Observations of fireproofing materials applied to parking deck surfaces at entrance to the building revealed such materials to be loosened, peeling, and with visible discolorations available sporadically. Observed conditions were generally unremarkable and as expected for the type of material applied to parking deck surfaces, and particularly given constant exposure of such materials to ambient outdoor environmental conditions. Being that the purpose of the applied material was to provide fireproofing to coated surfaces, response measures needed to be carefully considered to determine feasible options which would improve existing conditions yet not sacrifice the intent of the affected coatings. Consultation with an appropriate fireproofing product professional was recommended to determine available options.

As described, assessment activities within the Accounting Department and of exterior parking deck areas did not reveal any conditions of particular concern on the date of evaluation. However, response measures addressing those conditions identified and listed herein should have been provided to further improve existing conditions.

SCG appreciates the opportunity to be of assistance in this regard. Please do not hesitate to contact us should you have any questions, comments, or require additional information.

Sincerely,

SALAZAR CONSULTING GROUP, INC.

By:

Rene' R. Salazar, Ph.D.

Certified Industrial Hygienist