

DEPARTMENT OF HEALTH & HUMAN SERVICES



United States Public Health Service
Centers for Disease Control and Prevention
National Institute for Occupational
Safety and Health
Robert A. Taft Laboratories
4676 Columbia Parkway - R10
Cincinnati OH 45226-1998

August 30, 2002
HETA 2002-0096

Dear management and labor union representatives from BMCC and York Colleges:

Enclosed please find the interim report of the National Institute for Occupational Safety and Health (NIOSH) evaluation of the workers at the Borough of Manhattan Community College (BMCC) and York College. We are providing to you the comparison of rates of eye, ear, nose, throat and skin irritation, respiratory symptoms and gastrointestinal symptoms as well as symptoms of depression and post traumatic stress disorder between workers at BMCC and York Colleges. The evaluation of BMCC and York is part of a larger evaluation we are doing of workers employed near the World Trade Center (WTC) site. We will be doing further analyses of the collected information but with a combined dataset that includes all of the sites around the WTC that are included in the evaluation. When these further analyses are complete, we will be sending you a final report.

We would like to take this opportunity to thank all of you for your assistance with this project. We hope that the information provided in this report will answer some of the questions that have been raised since September 11th. We would be happy to answer any questions you have about this report and make a formal presentation at the colleges, if you feel that it is indicated. Those individuals who participated in our survey and provided contact information on their questionnaire will receive a personal letter informing them of the results and recommending medical follow up when indicated.

Please feel free to contact us at (513) 458-7159 for Sherry Baron and (513) 841-4327 for Ken Wallingford.

Sincerely,

Sherry Baron, MD, MPH

Ken Wallingford, MS CIH
Hazard Evaluation and Technical Assistance Branch
National Institute for Occupational Safety and Health

Evaluation of Physical and Mental Health Symptoms Following the World Trade Center (WTC) Disaster: Borough of Manhattan Community College and York College

Background

In December 2001, a number of labor unions representing workers employed in the vicinity of the WTC contacted the National Institute for Occupational Safety and Health (NIOSH) to request an evaluation of health complaints, such as cough and nose or throat irritation as well as mental health concerns, among their members working near the WTC site. Among these unions were District Council 37 of the American Federation of State, County and Municipal Employees (AFSCME) and the Professional Staff Congress (PSC), which represent the instructional and non-instructional staff at the Borough of Manhattan Community College (BMCC).

In response to these requests, NIOSH investigators met with labor and management representatives and determined that further evaluation was warranted. To address these concerns, NIOSH investigators designed a survey to assess whether employees who work near the WTC site were experiencing more physical and mental health symptoms compared to similar workers employed in New York City, but outside of the WTC site area. Due to the nature of the terrorist attack, residents all over the New York metropolitan area were affected by the WTC collapse. Thus, by choosing a comparison population from within New York City, we wanted to evaluate the additional effect caused by working near the WTC site. Four worker groups were selected for the study, Stuyvesant High School employees, Borough of Manhattan Community College employees, government office workers from a New York City government office building at 40 Rector Street and the State Attorney General's building at 120 Broadway and Metropolitan Transportation Authority New York City Transit workers employed in the stations, trains and buses that serve lower Manhattan and the WTC area. For each work group a comparison population was chosen that had the same or similar employer but was not near the WTC site area. The comparison population chosen for the Borough of Manhattan Community College was York College in Jamaica, Queens. This letter will provide interim results of the survey at the colleges. Further analyses will be conducted during the next few months and these results will be reported at a later date.

BMCC is a community college located two blocks north of the WTC site at the intersection of Chambers and West Streets. It has a student body of approximately 24,000, and offers classes between 8 A.M. and 10 P.M. While BMCC employs approximately 1700 instructional and non-instructional staff only 600-650 of the employees are full-time faculty or staff. While most of the full-time staff work regular eight-hour shifts, the faculty, which accounts for more than half of the full-time employees, are only required to be at the site during their teaching hours or for administrative meetings. The large part-time instructional and non-instructional staff includes professors teaching one or two classes and students or others who may work in clerical and other support services for a few hours per week up to close to a full 40-hour work week.

York College, the comparison college, like BMCC, is one of the City University of New York (CUNY) colleges. It is located in Jamaica, Queens; about 15-20 miles from the WTC site and serves approximately 6000 students. York College has about 1000 staff; however, as with

BMCC, only about 400-450 are full-time faculty or staff. The time schedule of classes is similar to that of BMCC.

On September 11th, classes at BMCC were cancelled after the crash of the two planes into the WTC, and the staff and students were instructed to leave the facility immediately. Because the site became a command center for the rescue and recovery operation, security and maintenance staff were asked to provide services in order to clean up and protect the building. The building was reopened for all staff on September 26th and classes resumed on October 1st. Although most of the college is housed in one large building, some classes were held at Fiterman Hall which is located directly across from the WTC. Fiterman Hall suffered major damage during the collapse and could not be reoccupied. To accommodate the students and faculty who had been using the damaged facility, several mobile classrooms were placed along West Street, adjacent to the BMCC complex. York College was closed on September 11th following the collapse of the WTC, following a decision by the CUNY administration to cancel classes in all of their colleges. The college reopened on September 12th with a normal schedule.

Selection Criteria for York College (Comparison Site)

Prior to the selection of a comparison college, a walk-through evaluation of BMCC was performed on January 17, 2002. Based on the walk-through evaluation of BMCC, two environmental factors were determined to be disqualifiers for the selection of the comparison college, (1) the lack of central air-conditioning; and (2) the presence of significant indoor environmental quality health complaints within the previous five years. After discussions with knowledgeable individuals and a site visit on January 30, 2002, York College was selected as the comparison college.

To characterize the differences between BMCC and York, a building inspection checklist (Appendix 1) was developed using the knowledge from previous NIOSH indoor environmental quality research studies. The building inspection checklist included selected environmental risk factors associated with either a significant increase or decrease in occupant reporting of the most common building-related health symptoms.

Walk-through evaluations were conducted at both colleges to complete the building inspection checklists at approximately the same time as the health symptom survey. The walk-through evaluations of York College and BMCC were conducted on March 11 and 12, 2002, respectively. During these walk-through evaluations, a variety of environmental factors were noted including the buildings' architectural style, physical structure characteristics, construction methods and materials, interior rooms orientation and uses, ventilation systems design and performance, preventive maintenance practices, housekeeping practices, building renovation history, and current building appearance (particularly the interior). The observations made during these walk-through evaluations were then used to complete the building inspection checklists.

Both colleges had central air-conditioning with ventilation systems of a similar design; neither reported significant indoor environmental quality health complaints within the previous five years. (The faculty of the Science Building at York College, which was closed for mold remediation at the time of the study, is not part of York College faculty and staff and is not included in the study.) Both colleges were well-maintained and clean. The single major

environmental difference between the colleges was that the Academic Core Building at York College had evidence of some chronic but minor water leakage around several of the perimeter classroom windows.

These results indicate that both colleges are environmentally similar and, based solely on observed environmental risk factors, would not be expected to have a significant difference in occupant reporting of the most common building-related health symptoms.

The Questionnaire

The purpose of the questionnaire was to obtain information for evaluating the prevalence of symptoms (mental health and physical) among the staff of the two colleges. The questionnaire was self-administered and included questions about work duties and location, symptoms occurring after September 11th, and whether those physical symptoms had improved or gotten worse since then. We asked selected information on past medical history and activities related to events on September 11th. We also asked about mental health symptoms associated with depression and post traumatic stress disorder (PTSD). It is important to note that the questions we used to assess the symptoms of physical and mental health problems are screening instruments designed for epidemiologic purposes, and are not used to individually diagnose any specific medical disorder. Only a competent health care professional who has completed a thorough clinical evaluation can make a reliable clinical diagnosis.

Definition of physical symptom

The physical symptoms included on the questionnaire (irritation symptoms, upper and lower respiratory symptoms, mucous membrane symptoms, gastrointestinal symptoms) were chosen based on prior NIOSH surveys and on information gathered during informal meetings with workers employed around the WTC site. An affirmative response to 'did you have any of the following symptoms after the WTC disaster on 9/11/01' was defined as having 'symptoms.' 'Persistent symptoms' were defined as either of the following: 1) those with symptoms that existed before 9/11/01 but had worsened since 9/11/01, or 2) those with new onset symptoms since 9/11/01 that had not improved.

Definition of mental health symptom

The questionnaire also included questions to assess symptoms of depression and post-traumatic stress disorder (PTSD). The questions related to depression were from the 20-question Center for Epidemiologic Studies Depression Scale (CES-D)¹. The Center for Epidemiologic Studies of the National Institute of Mental Health developed this short self-reported scale to assess symptoms of depression in the general population. Because of the nature of the WTC disaster, and the likelihood that respondents would be experiencing common acute symptoms that are found on the depression scale, we chose to narrow our focus to those having major depressive symptoms, which are defined as those scoring 22 or higher out of a possible 60 points.

Participants were also asked to respond to questions about having persistent intrusive thoughts, dreams, and vivid reminders about the WTC disaster and whether they were feeling emotionally numb, distant or cut off from friends. These symptoms and others were used to determine

whether respondents were experiencing symptoms that are characteristic of a PTSD. The questions related to PTSD were from the Veterans Administration PTSD Checklist². We used the officially accepted criteria for a diagnosis of PTSD as developed by the American Psychiatric Association in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV™) to define those individuals with symptoms consistent with PTSD.

Administration of the Questionnaire

A room at each college was designated as the location where staff could complete the questionnaire. NIOSH staff was available from 8 AM until 7 PM on two consecutive weekdays in order to accommodate faculty who did not have scheduled classes every day of the week. In both schools, notices were widely disseminated by the unions and the administration encouraging staff to come to the room and complete the questionnaire. The non-instructional staff was permitted to complete the questionnaire during their normal work shift. The instructional staff was encouraged to come during non-teaching hours; at BMCC part of the scheduled time fell during the monthly time slot reserved for departmental meetings when no classes are scheduled. Following the two scheduled days, those instructional staff at both colleges who had not participated had questionnaires placed in their college mail boxes with a postage-paid envelope for returning the form to NIOSH. All of the questionnaires were self-administered with NIOSH personnel available to answer questions. A few questionnaires were completed via a translator because of English literacy barriers. The questionnaire was administered on March 13th and 14th at BMCC and on March 18th and 19th at York.

Data Analysis

For this preliminary report we are providing a comparison of rates between the two colleges of reported symptoms, medical conditions newly diagnosed by a physician since September 11th and reported time off work. Future reports, which combine data from all of the work groups studied by NIOSH, will explore the relationship between the rates of these symptoms and various other factors measured in the survey such as exposures to the dust cloud, seeing the collapse and knowing a victim personally. The comparison was done by assessing the prevalence ratio (PR). The PR represents the prevalence rate of the symptom in the BMCC staff relative to the prevalence in the York staff. A PR of 1.0 means there is no difference in symptom prevalence between the schools. A PR of greater than 1.0 indicates the prevalence is greater at BMCC. For example, a PR of 2.0 would mean that the respondents at BMCC were two times more likely to have reported the symptom than respondents at York. Because all prevalence estimates have some uncertainty, we also calculate the 95% confidence interval. If the lower number in the 95% CI is greater than 1.0 then the evidence for the increase in symptoms in BMCC compared to York is especially convincing. The term “statistically significant” is used in designating the prevalence ratios that meet these criteria.

Although both part-time and full-time employees were invited to complete the questionnaire, we found that few part-time employees chose to participate. Although part-time employees constitute the majority of employees at both campuses, slightly less than 20% of respondents were part-timers. Therefore, we decided to restrict our statistical analyses to the full-time employee respondents.

Most of the respondents worked in the main building on each campus. Of the BMCC full-time faculty and staff participants only 13 (4%) reported working in one of the mobile classrooms and 24 (7%) reported being in Fiterman Hall on September 11th. At York College only 6 workers (3%) reported spending most of their time in the Science Building during the previous year while most (87%) reported spending their time in the Academic Core Building. Therefore, although they were included in our main analyses, we did not attempt to assess the additional impact of assignments to these other buildings or classrooms.

Results

At BMCC, 374 of the 600-650 full-time employees completed the questionnaire and at York, 204 of the 400-450 full-time employees completed the questionnaire. There were no statistical differences between the two colleges with regard to job category, sex, number of years working at CUNY or smoking status. Approximately 60% of respondents in both colleges were either faculty or other instructional staff (higher education officers and laboratory technicians). Participation rates for instructional and non-instructional staff did not differ substantially between the schools. At both colleges, approximately half the respondents were female and had worked an average of 14 years for CUNY. Thirteen percent of respondents in both colleges were current smokers.

According to the questionnaire, 37% of both the York staff and the BMCC staff personally knew someone injured or killed at the WTC collapse. Although the crash occurred before 9 A.M., when many college staff may not yet have arrived at work, two thirds of the BMCC staff reported being in lower Manhattan at the time. Not surprisingly, at BMCC the staff was five times more likely to report having witnessed the planes crashing into the WTC and 15 times more likely to report seeing individuals falling or jumping from windows compared to the York staff.

Reports of physical symptoms since September 11th

Table 1 shows the list of symptoms included in the questionnaire. Most of the symptoms can be broadly grouped as follows: 1) symptoms of irritation of the nose, throat, eyes and skin, 2) respiratory problems such as cough, wheezing, shortness of breath and chest tightness, and 3) gastrointestinal problems such as indigestions, nausea and diarrhea. Table 1 shows the number and percent of respondents who reported experiencing each symptom after September 11th and then the prevalence ratio and 95% confidence interval. This table shows that BMCC workers had higher rates of symptoms than the York workers, and rates of nose, throat and eye irritation, all of the respiratory symptoms, and nausea and headaches were statistically higher in BMCC workers compared to York workers.

Reports of persistent symptoms since September 11th

In addition to reports of any symptoms after September 11th, we were interested in determining the rates of persistent symptoms that had not improved by March when the clean up was almost complete. Table 2 shows the rates of these persistent symptoms. By comparing Table 1 and Table 2, you can see that 50% or more of those reporting any symptoms since September 11th reported that the symptom had improved by March 2002. However, 10-30% of the BMCC employees were still reporting eye, nose, throat and skin irritation, and respiratory complaints such as cough, shortness of breath, wheezing and chest tightness. The prevalence ratios show that

the rates of persistent symptoms were higher in BMCC than York and most differences were statistically significant.

Reports of lost work days

The questionnaire asked whether the workers had lost time from work because of any of the symptoms listed in Tables 1 and 2. At BMCC 27% of the respondents reported losing time from work, while at York 16% reported losing time from work. The difference between these two percentages was statistically significant.

Reports of symptoms consistent with depression and PTSD

Table 3 provides the rates for those reporting symptoms consistent with major depression and PTSD. This table shows that 24% of BMCC workers and 17% of York workers had symptoms meeting criteria for symptoms of major depression. The rates of symptoms consistent with PTSD were 15% at BMCC and 8% at York. The rate for PTSD was statistically higher at BMCC compared to York.

Reports of conditions newly diagnosed by a physician

We asked workers whether they had been told by a physician that they had specific medical conditions and whether those conditions had been diagnosed before or after September 11th. Table 4 shows the rates of respondents who were told by a physician *since* September 11th that they had asthma, allergies, depression or PTSD. These rates were calculated based on those workers who had no previous diagnosis of the condition before September 11th. This table shows that rates of all four diagnoses were higher in BMCC than in York but only the difference for PTSD was statistically significant.

Conclusions

The survey carried out in March 2002 at BMCC and York Colleges has shown that the rates of symptoms related to nose, throat and eye irritation as well as respiratory symptoms and some gastrointestinal symptoms were higher at BMCC compared to York. Although half of those reporting any symptom since September 11th also reported some improvement, at BMCC between 6 and 31% reported persistent symptoms still present in March 2002. These symptoms may have been due to exposure to complex environmental contaminants (e.g., smoke, respirable airborne particles, fine dust, and fire combustion products) from the collapse of the towers and ensuing fires. An understandable limitation at the time of the collapse of the WTC was the lack of initial environmental exposure assessment, thus we do not know the scope or extent of exposure at that time. Sampling by NIOSH, between September 18th and October 4th, to evaluate exposures for those working in the rescue and recovery operation found that few of the measured substances exceeded occupational standards³. However, little is known about the health effects from complex exposures such as occurred as a result of the WTC collapse and subsequent on-going fires. Studies such as this and others involving more in depth evaluations of rescue and recovery workers may be helpful in clarifying some of these associations.

Symptom surveys and interpretations based on frequency data have limitations. Responses to extraordinary traumatic events may provoke a range of reactions, and symptoms alone are not adequate to fully diagnose medical conditions. Following a traumatic event, symptoms that would once be overlooked, may be perceived as more serious and reported as such. Those who continue to experience persistent or recurrent symptoms should be evaluated by a health care professional so that a complete assessment can be made. Further systematic investigations using full clinical diagnostic assessment, though labor and resource intensive, would be useful in sorting out the breadth and scope of illness in those with persistent symptoms.

We found that 24% of BMCC staff and 17% of York staff had symptoms consistent with major depression and 15% of BMCC staff and 8% of York staff had symptoms consistent with PTSD. Although the rates of symptoms of depression in both colleges are higher than national studies that have used the same set of questions (CES-D)⁴, those populations had not recently experienced a major disaster and may be of limited utility as a comparison. Other studies of the WTC and previous disasters have shown similar results. A study which evaluated survivors six months after the bombing of the Federal Building in Oklahoma City found that 34% met the diagnostic criteria for PTSD⁵. Various studies of New York City residents conducted since September 11th have identified elevated rates of symptoms of depression and PTSD and, although they have used a variety of assessment methods, the rates are consistent with what we found in the colleges^{6,7,8}. One large national study found that all New York City respondents had higher rates of symptoms of PTSD compared to other respondents, and those in the WTC or a surrounding building on September 11th had higher rates compared to other New Yorkers⁶.

It is difficult to predict the long term effect from this disaster on mental health. Many of the symptoms which the college staff is experiencing may be normal and reversible reactions to a traumatic event. Researchers evaluating the Oklahoma City bombing found that most individuals directly involved did not develop diagnosable psychiatric illness, but the majority reported experiences such as sleep disturbance, feeling emotionally upset afterwards and loss of concentration⁹. However, it is important to encourage the members of the college staff who continue to experience symptoms to seek professional help.

For questionnaire studies such as this, we aim for a participation rate of over 80% of the staff to assure that the results are representative of all employees. The participation rate in this study was 50-60%. The college environment posed certain challenges in obtaining an adequate participation rate including the irregular schedule of the faculty, the difficulty of recruiting and locating staff among the thousands of students and the general burden of paperwork that faculty and staff are required to complete. However, the results of the same survey completed by staff of Stuyvesant High School and a comparison High School, where participation rates were over 80%, showed very similar results to the colleges. I have included a copy of these results for your information.

Recommendations

The workplace plays an important role in the health of its workers. One of the ways the workplace can help reduce the burden of illness is by providing a community and a mechanism for social support. Social support from supervisors and coworkers has been shown in repeated studies to buffer the effects of stress¹⁰. Therefore, it is essential that the college administration and labor unions continue to develop a community atmosphere that is supportive and encourages and

assists those who continue to experience symptoms to seek care from a competent health care professional. This is equally important at York where employees were likely to know a victim and, like many other New Yorkers, also expressed symptoms associated with depression. Some of the specific ways that this can be accomplished include:

- Those staff members who continue to experience persistent symptoms should be encouraged to seek competent professional medical assistance. Administration and union officials should seek mechanisms such as hot line numbers, college-based counseling services and posters to inform members of available services.
- Free mental health services have been made available by governmental and nongovernmental agencies. The administration should find methods to advertise these services and seek ways to encourage participation when indicated. Many individuals may avoid accessing mental health services because of the stigma that is associated with mental illness. It is important for the college community to find ways to help minimize this stigma and to encourage participation.
- Training should continue for managers and supervisory personnel at all levels to insure that each group is responding appropriately to health and safety concerns of employees. As part of this training, issues at the organizational level should be evaluated to determine whether improvements can be made to address widespread concern among employees concerning health, safety and security issues. Each college has an existing union/management health and safety committee and these committees are excellent mechanisms to address safety and health concerns as they arise.
- Developing programs to foster social support on campus are important in buffering workplace stress. This may be especially important in the period surrounding the anniversary of September 11th.

Tables 1
Physical Health Symptoms Occurring After September 11th 2001
Borough of Manhattan Community College and York College

Have you had any of the following symptoms since the WTC disaster on 9/11?	BMCC	York	Prevalence Ratio BMCC/ York (95% Confidence Interval)
	Number (%)	Number (%)	
Nose/throat irritation *	219 (62%)	72 (37%)	1.7 (1.4-2.1)
Eye irritation *	224 (62%)	70 (36%)	1.8 (1.4-2.1)
Skin irritation	91 (25%)	37 (19%)	1.4 (1.0-1.9)
Congestion	156 (44%)	78 (39%)	1.1 (0.9-1.4)
Cough, any kind*	216 (60%)	72 (36%)	1.7 [1.4-2.0]
Cough with phlegm *	106 (30%)	42 (21%)	1.4 [1.1-1.9]
Chest tightness *	111 (31%)	24 (12%)	2.5 [1.7-3.8]
SOB *	130 (36%)	31 (16%)	2.3 [1.6-3.3]
Wheeze *	72 (20%)	15 (8%)	2.6 [1.6-4.5]
Indigestion	97 (27%)	42 (21%)	1.3 [1.0-1.8]
Nausea *	60 (17%)	15 (8%)	2.2 [1.3-3.8]
Diarrhea	61 (17%)	30 (15%)	1.1 [0.8-1.7]
Headache*	197 (55%)	86 (43%)	1.3 [1.1-1.5]

* Statistically significant prevalence ratio

Table 2
Persistent Physical Health Symptoms Occurring After September 11th 2001
Borough of Manhattan Community College and York College

Persistent Symptoms after the WTC disaster on 9/11?¹	BMCC	York	Prevalence Ratio BMCC/ York (95% Confidence Interval)
	Number (%)	Number (%)	
Nose/throat irritation *	102 (29%)	19 (10%)	3.0 (1.9-4.7)
Eye irritation *	112 (31%)	20 (10%)	3.1 (2.0-4.8)
Skin irritation*	46 (13%)	9 (5%)	2.8 (1.4-5.7)
Congestion*	74 (21%)	18 (9%)	2.3 (1.4-3.8)
Cough, any kind*	101 (28%)	25 (13%)	2.2 [1.5-3.3]
Cough with phlegm *	45 (13%)	12 (6%)	2.1 [1.1-3.9]
Chest tightness *	49 (14%)	5 (3%)	5.4 [2.2-13.3]
SOB *	65 (18%)	9 (5%)	4.0 [2.0-7.8]
Wheeze *	37 (10%)	5 (3%)	4.1 [1.6-10.1]
Indigestion *	44 (12%)	6 (3%)	4.2 [1.8-9.6]
Nausea	19 (5%)	4 (2%)	2.6 [0.9-7.6]
Diarrhea	20 (6%)	7 (4%)	1.6 [0.7-3.7]
Headache*	100 (28%)	28 (14%)	2.0 [1.4-2.9]

* Statistically significant prevalence ratio

¹ Symptoms that existed before 9/11/01 but had worsened since 9/11 or new onset symptoms that had not improved

Table 3
Mental Health Symptoms
Borough of Manhattan Community College and York College

Symptoms consistent with:	BMCC Number (%)	York Number (%)	Prevalence Ratio BMCC/York (95% Confidence Interval)
Depression ¹	85 (24%)	34 (17%)	1.4 (1.0-2.0)
PTSD ² *	53 (15%)	17 (8%)	1.7 (1.04-2.9)

¹Depressive symptoms were defined as a score of 22 or more using the CES-D scale.

²Post traumatic stress syndrome was defined using the Veteran's Administration Checklist and applying the DSM-IV criteria.

* Statistically significant prevalence ratio

Table 4
Reported Newly Diagnosed Medical Conditions
Borough of Manhattan Community College and York College

Has a physician told you that you have:	Physician told me after September 11 ¹		Prevalence Ratio BMCC/York (95% CI)
	BMCC Number (%)	York Number (%)	
Allergies	16 (7%)	3 (2%)	2.9 (0.8-10.1)
Asthma	10 (3%)	1 (1%)	5.8 (0.7-46.0)
Depression or Mood Disorder	14 (4%)	3 (2%)	2.5 (0.7-8.9)
Post Traumatic Stress Disorder*	18 (5%)	2 (1%)	5.1 (1.2-22.1)

¹ Rate is based only on those who did not have a diagnosis of the condition before 9/11

* Statistically significant prevalence ratio

Appendix 1
Building Inspection Checklist

HETA No.: _____ Date: _____

Name of Inspector(s): _____

Building Name: _____

Building Address: _____

Lower Manhattan Building ☐ ☐ Comparison Building

Building Design and Maintenance

Work Areas Appear Overcrowded Y N

Comments: _____

Suspended Ceiling Panels are Present Y N

Comments: _____

Cloth Partitions are Present Y N

Comments: _____

Surface Dusting is Performed Daily Y N

Comments: _____

Evidence of Moisture: Y Estimated Area (ft2) _____ N

Comments: _____

Renovation Was Performed Within the Last 6 Months Y N

Comments: _____

Heating, Ventilating, and Air-Conditioning (HVAC) System(s)

HVAC Design and Maintenance

HVAC System(s) Provide Air Conditioning Y N

HVAC System(s) have Scheduled Inspections Y N

HVAC System(s) have Scheduled Maintenance Y N

HVAC Outdoor Air Intake(s) Y N

Location: Roof ☐ Ground Level ☐ Below Grade ☐ Exterior Wall ☐

Other (specify) _____

Cleanliness: Clean 5 4 3 2 1 Dirty

Describe _____

Within 25 Feet of the Outdoor Air Intake(s) There Are:

Sanitary Vents ☐ Exhaust Vents ☐ Vehicle Traffic ☐ Standing Water ☐

Trash Dumpster ☐

Comments _____

HVAC Air Filters

Filter Cleanliness: Clean 5 4 3 2 1 Dirty

Filters Fit Securely in Frame without Leakage Y N

Scheduled Filter Replacement Y N

Comments _____

HVAC Moisture

Condensate Drain Pan(s) Drains Properly Y N

Sound Liner is moist Y N

Comments _____

HVAC Cleanliness

Comments _____

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