Environmental Health Surveillance at the 1976 Festival of American Folklife

DONALD K. SUMMERS and JOHN H. FRITZ*

Environmental Sanitation Program
National Park Service
1100 L Street, N.W., Washington, D.C. 20240

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ABSTRACT

Overall the 1976 Festival of American Folklife was a highly successful affair both from a cultural and environmental health standpoint. Although a number of health-related problems arose on a day-to-day basis, close surveillance and prompt action on the part of the onsite sanitarian made it possible to secure early resolution of them with no ill effects among either visitors or the Festival staff. Logistically, planning and conducting of the comprehensive Smithsonian Institute (SI) food operations involving 50 different ethnic groups was an accomplishment worthy of note. Even more important, however, was the fact that during the entire time the Government Services, Inc. and SI food service operations were in progress, there was not a single case of foodborne illness associated with foods and beverages served to an estimated 500,000 persons onsite. This was in large measure due to the excellent cooperative assistance furnished by health agency personnel in the District of Columbia and the surrounding counties in Maryland and Virginia. These personnel inspected the many food establishments within their jurisdictions which served as sources for foods served at the Festival. All individuals and groups assisting directly or indirectly with this aspect of the Festival may justly be proud of the achievement.

One of the major attractions for visitors celebrating the Bicentennial in the Nation's capital was the Festival of American Folklife which was held June 16 to September 6, 1976, on the Mall beside the Lincoln Memorial Reflecting Pool.

Providing adequate environmental health protection for visitors and staff, particularly as it related to foods served onsite, was a matter of major concern to the National Park Service (NPS) in planning for this event. Toward this end, staff of the NPS Environmental Sanitation Program (NPS/ESP) who are on detail to the National Park Service from the Public Health Service, Center for Disease Control, were extensively involved in planning needed sanitary facilities and provided day-to-day environmental health surveillance onsite throughout the operating period.

This report sets forth in detail the steps taken to assure the safety and wholesomeness of foods served onsite. It can serve as a guideline for regulatory agency personnel responsible for planning and implementing environmental health programs at similar affairs of the same magnitude.

While foodservice at most temporary affairs such as fairs and carnivals is normally on a scale far smaller than the 1976 Festival, the basic principles of food protection remain the same. However, the sophistication of the facilities used at the Festival may not be needed at smaller and shorter affairs. This report attempts to provide guidance in arriving at the minimal facilities needed to provide adequate consumer protection.

HISTORY OF THE FESTIVAL

The Festival of American Folklife is a presentation of the Smithsonian Institution (SI) and the National Park Service (NPS), and is sponsored by several commercial organizations. Its purpose is to increase public appreciation of the various cultures of this country and to demonstrate to the people of this Nation the vital and continuing folk traditions, arts, and skills of Americans. This is achieved through use of eight different Regional themes or activities. They are: Native Americans, Old Ways in the New World, African Diaspora, Regional Americans, Working Americans, Transportation, Family Folklore, and Children's Folklore. Five of the eight Regional activities, in addition to presenting their many arts, skills, and crafts, demonstrated a wide variety of ethnic foods, including the specific methods and procedures to be followed in their preparation and serving.

This year was the 10th consecutive year for the Festival which in recent years has been held on the Mall beside the Lincoln Memorial Reflecting Pool. It has grown from a 3-day affair to a 2-week affair, with expansion to 12 weeks for the 1976 Bicentennial celebration.

The 1976 Festival was one of the largest and most prolonged outdoor events of this type ever to be held in this country. Over 5,000 performers from the United

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1 The festival was held in Washington, D.C. from June 16 to September 6, 1976.
States and 38 foreign countries, in addition to members from 55 trade unions and organizations, 116 Native American Tribal groups, and over 600 musicians and crafts people from every Region of the United States participated. The estimated visitor attendance at this event was 4 million. The cost of producing it was $7.4 million.

Although the Festival required implementation of an environmental control program covering water supply, solid and liquid waste disposal, insect and rodent control, and food protection, the latter was the area of primary concern from a public health standpoint.

In this regard, there were two types of foodservice available onsite. The Government Services Inc. (GSI) provided basic foodservice through one small and two large operations. Such service has been considered necessary at these festivals since onsite food establishments are too far removed for convenient use by visitors spending extended periods taking in the Festival events. In addition, the SI, as a part of the Festival, sponsored specialized foodservice operations intended to give the visitor an opportunity to partake of ethnic foods representing the culture in many of the American ethnic communities, e.g., Native American, Old Ways in the New World, and African Diaspora. In all, there were approximately 50 different ethnic groups and 900 individuals involved in transporting, preparing, displaying, and serving foods from 21 ethnic and food demonstration stands and the GSI food stands.

ENVIRONMENTAL SANITATION PLANNING FOR THE 1976 FESTIVAL

In looking ahead to the 1976 Festival, experiences of NPS/ESP staff with the provision of environmental health control at prior festivals were evaluated to determine changes which would be needed to assure adequate protection for what was expected to be a greatly increased visitation during the Bicentennial festival. While the problems of solid and liquid waste disposal were expected to increase substantially, food protection continued to be the major concern, with vector control and its direct impingement on food protection being a secondary yet very important environmental health consideration.

In this regard, the somewhat limited foodservice facilities available in the ethnic food stands at previous festivals made it difficult to provide a satisfactory level of food protection. Generally speaking, the equipment and facilities available for storage, preparation, display, and serving of foods and for washing of utensils and worker’s hands were minimal. This made it necessary at times to limit menus, provide improvised sanitation facilities, and require special handling procedures to assure that foods to be served were prepared and handled in a satisfactory manner. This situation also required close day-to-day environmental health surveillance to compensate for the quality of the physical facilities available and to cope with food handling problems associated with the use of untrained volunteer food handlers.

While it was a difficult task to provide adequate environmental health protection at previous festivals, the extended length of this Festival, together with the anticipated increase in visitation, was expected to seriously intensify these problems, particularly as they relate to facility construction and maintenance, operating practices, and vector control. Thus, it was agreed that the food service facilities to be installed for the 1976 Festival would have to be much more sophisticated than in prior years if adequate environmental health protection was to be provided.

Accordingly, in early November 1975 it was recommended to the National Capitol Parks (NCP), the organizational unit within the National Park Service responsible for the Festival, that meetings be held with representatives of the GSI and the SI to discuss all environmental health implications of the Festival, develop plans for installation of adequate sanitary facilities, and establish minimum operational criteria. Subsequently seven major conferences and many individual discussions were held with NPS, SI, and GSI personnel. At these meetings, environmental health problems encountered at previous festivals and the effect of lengthening it from 10 days to 12 weeks were discussed in depth and the actions needed to be taken to correct both actual and potential environmental health problems were identified.

These meetings proved to be invaluable when viewed retrospectively. For one thing, they provided an opportunity to discuss in detail the “Tentative Guidelines for Establishing and Operating Temporary Food Service Operations on National Park Service Controlled Areas,” developed by the NPS/ESP, which contained the criteria to be applied to all Festival food operations. This was particularly important in regard to the design and construction of stands since it resulted in development of detailed plans by the concessioners which were submitted to, and approved by, NPS in advance of construction. With but a few exceptions, the stands were installed according to the plans thereby eliminating a major problem frequently encountered with temporary food-service operations, i.e., inadequate facilities.

As a result of the above actions, the foodservice facilities installed included the major equipment items needed to conduct a satisfactory operation such as refrigeration; cooking and hot food holding equipment; separate hand and utensil washing facilities; hot water tanks; concrete floors with sewer connections; screening; formica or painted counters with storage shelves; and storage space for staples. In addition, each ethnic food stand had an ice maker, and three backup walk-in refrigerator/freezer units were made available to such stands by the SI for storage of excess food purchased for peak weekend demands. A series of photographs (Fig. 1-9) show both general and detailed pictures of those stands under construction and after completion and also show other sanitary facilities. Without a doubt, few if any
Figure 1. General view of Festival site.

Figure 2. GSI Food Stand under construction.

Figure 3. Inside view of completed GSI stand.

Figure 4. Ethnic food stand under construction.

Figure 5. Inside view of completed ethnic food stand.

Figure 6. Exterior view of ethnic food stand.

Figure 7. SI backup refrigerator/freezer units.

Figure 8. On-site solid waste compactor unit.
of the temporary foodservice establishments across the
country have ever been better equipped. Further, the
 provision of these facilities was extremely important in
 providing a high degree of food protection.

A number of other decisions which were made and
the actions planned were also very important. One was to
provide a full-time highly qualified PHS food sanitarian
for continuous surveillance during operating periods. As
will be shown later under Festival operations, his
presence onsite was a major factor, along with good
facilities, in helping assure an effective foodborne illness
prevention program.

Another important decision was to require that the SI
staff furnish menus for all ethnic food operations
(including foods to be handled in demonstration
programs) showing a list of the specific ingredients to be
used in the food to be served. There were approximately
75 separate menus involved. Due to the ethnic
characteristics of many of these foods, it was necessary to
obtain a complete description of the ingredients to be
used in each menu item, as well as preparation and
storage methods to be employed by the concessioners.
This information was supplied in advance of the dates
the foods were to be served to permit adjustment of the
menu where the facilities onsite for preparing and
serving a specific potentially hazardous food were not
considered adequate.

Further, the SI was required to identify all offsite food
sources to the NPS/ESP personnel so such sources could
be officially inspected by the appropriate health
agencies. If the source did not meet accepted public
health standards, the concessioner was told to find an
approved source. It was further required that specific
information be submitted as to the methods and facilities
to be used in transporting the food from offsite sources to
the Festival area and the approximate time the food was
scheduled to arrive onsite. It was also agreed that the
NPS, with assistance of the PHS sanitarian, would
supervise installation of all food facilities and, in
addition, would provide needed utilities, collect and
dispose of all trash and garbage generated onsite, and
provide insect and rodent control as needed.

The SI's planned ethnic food program created yet
another potential problem. As previously stated,
approximately 50 different volunteer groups agreed to
prepare and serve, or demonstrate preparation of, special
foods reflecting their ethnic background or industry
processing in the 16 stands set aside for this purpose.
This required, in some instances, more than one group
operating in a given stand simultaneously, and in other
situations, two or more groups used the same facility
within a particular week's operating period (Wednesday
through Sunday). To assure that the stand was left clean
and ready for the next group's use, the SI staff assumed
responsibility for seeing that each group maintained the
equipment and facilities in a sanitary manner and left
the food site clean and in an operative condition. If they
failed to do so, it was the SI's responsibility to correct
deficiencies before a new group took over.

Yet another major step in planning was to provide for
the prompt investigation of any illnesses, particularly
foodborne, alleged to have occurred as a result of Festival
operations. In this regard, the District of Columbia
Department of Human Resources (DHR) set up four
first-aid stations at strategic locations on the Mall, and
the Red Cross manned one such facility on the Festival
grounds. Through a coordinated effort of the NPS, the
Center for Disease Control, DHR, Red Cross, and the
NPS/ESP, a carefully worked out contingency plan was
set up to handle any reported illnesses. Fortunately, it
was not necessary to test the effectiveness of this plan.

1976 FESTIVAL OPERATIONS

On the opening day of the Festival the onsite PHS
representatives found all of the SI and SI foodservice
units were in substantial compliance with the applicable
foodservice establishment guidelines and that they would
be acceptable for preparing and serving food and drink.
During the first few days of the Festival, it was necessary
to require some changes in the foodservice facilities and
operations primarily due to malfunction of equipment,
overloading of food storage equipment, and lack of
sufficient utensils and equipment to prepare, store, or
serve foods or drinks properly.

Conditions found subsequently that warranted
improvement were generally corrected immediately or
within a very short time of their occurrence. For example,
if the refrigeration facilities (freezer, refrigerator or ice
maker) were not operating satisfactorily, a correction
notice was issued by the onsite PHS sanitarian and the
appropriate service group would repair the units or
replace the faulty equipment. The same basic procedure
was also used for correction of defects found with other
facilities, such as plumbing, cooking, and water heating
equipment; food tent repair; and the replacement or
repair of cabinets, tables, doors, and screening. With
regard to screening, doors and serving windows on the
ethnic food stands were not of proper or durable
construction and required constant attention throughout
the Festival.

In several instances as many as three or four different
SI volunteer groups of from 10 to 20 persons each had
agreed to prepare and serve food for a few hours to

Figure 9. Temporary comfort station.
that appeared necessary. A third inspection was conducted during the mid-afternoon food operations. Improper food service practices generally occurred about this time and the problems encountered could be quickly corrected before the food was to be served during the afternoon rush period.

In most instances food operations were required to be closed before 7 p.m. each day, and generally, depending on customer demands, the concessioners completed their operations by 5:30 p.m. A fourth inspection was conducted at about the end of the serving period to determine if proper cleanup procedures were being followed and to see if the stored foods were being correctly placed under effective refrigeration.

When necessary, a daily report or notice was submitted directly to the concessioners to advise them on any insanitary condition that was observed. Also an official inspection report was prepared for each food establishment during each work week, and a recap of the violations that had occurred was reported to the SI officials and their concessioners and to the GSI, respectively. Copies of inspection reports relating to sanitation problems were also furnished to National Capital Parks officials.

In those instances where it was necessary to suspend a foodservice operation until a problem was corrected, a notification of the suspension was submitted to both the SI and National Capital Parks which delegated this authority to the onsite sanitarian. In this regard, it was necessary on five occasions to restrict or suspend operations of a foodservice establishment until such time as the violated conditions were corrected.

In addition to the daily inspection of all ethnic and regular food facilities, a scheduled visit was made at least once each day to the Children’s Folklore area to observe the methods employed in preparation and serving of beverages and to assure that methods used at the Arabbers fruit and melon cutting operation for storage of the equipment and fruit, sanitizing of the knives and cutting boards, and wrapping and icing of the cut fruit were satisfactory.

Also, during this visit the pony cart locations were inspected to assure that the area was being cleaned satisfactorily. The horse and pony stables were inspected to assure that cleaning of the stalls, removal of manure, and correction of any rodent or insect infestation at the stables were properly done. Inspections of insect, rodent, manure, and odor problems that occurred from Festival events using animals such as sheep, cattle, work horses, dairy cows, and calves were included.

Daily inspections were made at all trash collection sites and very few defects were observed during the entire Festival period. In fact, the collection and disposal of garbage and trash from the Festival area was perhaps one of the most efficient and well organized portions of the Festival environmental operations.

A number of special food demonstrations were featured by the Festival, and daily inspections were
required during their presentation. These events included baking and smoking salmon, preparing chuck wagon type foods (beans, barbecue beef, and biscuits), demonstrating meat cutting and baking, barbecuing beef and poultry, cooking catfish, milking cows, making sorghum, and other specialty food handling activities such as restaurant and bar operation techniques.

In all such special events, the food could not be offered to the public unless it was properly protected during preparation, storage, and serving. In those instances where the food was not properly protected and therefore not considered acceptable for human consumption, following the demonstration the food had to be destroyed under supervision of the PHS Sanitarian. As an example of the preventive measures taken where the food was considered unacceptable, after the cow milking demonstration the milk had to be discarded to waste because the cows were milked under an open tent and the milk was not properly protected when stored. Another example relates to manufacture of a specialty cheese using unpasteurized milk. The cheese was permitted to be exhibited but was not acceptable for human consumption. The specialty type foods prepared by the restaurant association group were discarded as garbage for demonstration purposes and not to be consumed by the public.

A series of water and ice samples were collected from selected distribution points throughout the Festival area and submitted for bacteriological analysis — no unsafe sample results were obtained. It was necessary, however, to reject shipments of ice from two sources due to presence of foreign matter.

TRAINING

Food sanitation training courses were conducted for most of the food service supervisors and a number of their personnel. The training was generally conducted at the food stands and held just before the start of each new operating period. The course included a brief discussion of the needs for safe-guarding the food during preparation and serving and was followed by a film discussing the sanitation aspects of food handling. A total of 158 persons, mostly supervisors and cooks, attended these training sessions.

PLANNING FOR FUTURE FESTIVALS

The design and construction features of the food-service stands for the 1976 Festival were generally satisfactory and provided the operators with a facility for preparing and serving foods and drinks which was much superior to those available in past events. Despite this, it is believed the following facility improvements should be considered in designing facilities for future festivals to provide greater food protection and/or improved cleaning:

1. All serving counters and cabinets should be sealed to the floor or installed on legs or supports to provide at least 6 inches of clearance between the floor and the bottom of the counters to provide for complete improved cleaning of the floors at the food sites and to avoid harborage areas for vermin. The space will require closure against insect and rodent entry between the bottom of the counters and the floor.

2. The tent roof overhang should be extended to at least 8 inches beyond the outside edge of the counters to avoid rain water from dripping on the counters and shelves.

3. The plastic mesh screening installed in the 1976 ethnic food stands was not entirely satisfactory and should be replaced with galvanized or aluminum type screening. Further, all doors and serving windows should be constructed of durable materials that will withstand extreme usage. Also, food demonstration stands should be equipped with outward opening self-closing doors of either screened or solid type construction.

4. Hot water facilities should be installed in all food demonstration sites for use in cleaning operations and for washing of the hands of the foodservice workers. Hot water should also be made available at all hand-washing facilities at the other food sites.

5. All indirect sewer connections from hand-washing and utensil-washing sinks should be equipped with a funnel-type splash guard to avoid splash.

6. There were a number of pots and pans used at all food operations which were too large to permit proper washing and sanitizing in the sinks provided. Sinks installed at future festivals should be of such size as to accommodate the utensils to be washed.

7. A variety of beverage dispensers were brought onsite by concessioners, many of which were not of acceptable design or construction. Approved type beverage dispensers should be provided in each food stand as a part of the installed facilities.

8. A 4-ft to 6-ft hard-surface walkway of concrete or asphalt material should be installed at the entrance to the food tents to prevent pooling of water which causes a soggy condition at the entrance to food tents.

9. A raised platform or rack should be installed outside each food site for storage of trash containers.

10. Each stand should be equipped with conventional hot-holding equipment where hot foods are displayed for serving. Use of "canned heat" and chafing dishes for heating foods cannot be accepted since sufficient heat cannot be applied to the food with such equipment in this type situation to maintain the food temperature at 140 °F or above.

11. All food stands should have a separate water hose connection installed for use in floor cleaning operations. Also, vacuum breakers should be installed on all hose connections at the food stands, animal watering troughs, and at the cleaning facility for garbage trucks and equipment.

12. All sewer connections need to be properly trapped
to avoid odors.

13. All sources of ice should be investigated for compliance with public health standards before being considered acceptable for use at the Festival.

14. Changes in the location of a number of facilities should be considered at the next Festival. The foodservice sites, first aid stations, and employee feeding facilities should not be located near areas such as horse stables and garbage, trash-dumping, or collection areas. These should be located in areas of sufficient distance from other facilities so that the problems of flies, odors and rodents will be minimized.

Some improvements in operating practices which should be considered in planning future festivals include the following:

1. All bakery products or other food staples not packed in rodent-proof containers should be removed from the stand each night or rodent proof containers should be provided for their storage during nonoperating periods. It was necessary on several occasions during the last 3 weeks of the Festival to destroy large quantities of bakery products which were contaminated by rodents.

2. Concessioners should be required to provide an adequate supply of dippers of assorted size, large spoons, long-handled scoops, plastic gloves, and similar utensils needed to minimize contact with foods.

3. Concessioners should be required to provide approved single-service cup dispensers for all sizes of single-service cups used.

4. The use of horses by the National Capital Park Police in the main visitor areas of the Festival needs to be reevaluated. In view of the amount of horse manure deposited at these areas and near the food sites and the manure not being disposed of properly, it is suggested that the mounted police be stationed only at the fringe areas and that motor bikes or electric golf carts be used to patrol the main areas of the Festival and that, even then, more frequent manure collection be established.

5. When not in use, grates for outdoor grills should be stored inside the stand following cleaning to protect the food contact surfaces from dust, bird droppings, and rodents.

As previously stated, this report was intended in part to provide guidance to regulatory agencies responsible for planning and implementing a comprehensive environmental health program at long-term temporary gatherings such as fairs and community festivals. It should be noted, however, that the unusual length of the Festival of American Folklife dictated the installation of more sophisticated facilities than would be economically feasible or perhaps even necessary for many short term (3-10 day) affairs of this type. For example, installation of concrete floors and sewers may not be justified in such cases unless the same site is used several times in a year or annually over a long period. Well constructed wooden platforms would be adequate flooring for such stands where the affair does not exceed 10 days. Likewise, improvised handwashing facilities can be used in lieu of conventional sewer-connected lavatories if there is adequate monitoring during the operating periods to assure proper use.

Accordingly, it is suggested that where the facilities to be used do not meet fully the requirements set forth in current PHS-FDA Food Service Sanitation Manual, the regulatory agency involved meet with the concession operators and establish jointly the facilities needed to assure adequate food protection, waiving or modifying the FDA criteria when it is determined that such action will not result in a health hazard. In this process, it is highly recommended that all menus be approved by the regulatory agency during the planning stage to serve as a basis in part for establishing what facilities will be needed. At times it may be necessary to impose even more stringent requirements to assure that the proposed operations are acceptable from a food protection standpoint.