

# Directive

9160.50 3-19-12

## OFFICIAL INSPECTION LABORATORY LOCATION, DESIGN AND MAINTENANCE REQUIREMENTS

### 1. PURPOSE

This directive establishes requirements for the physical location, design and maintenance of space provided to the Federal Grain Inspection Service (FGIS) by facilities for the performance of requested official inspection and weighing related service. Additionally, this directive establishes the requirement for facility owners to relocate or improve existing equipment or handling equipment (e.g., scale monitors and printers, diverter-type mechanical sampler delivery systems) to an FGIS laboratory or other FGIS acceptable location that is a minimum of 100 feet from an elevator's head house or other physical structures (e.g., storage bins). This action is necessitated by FGIS's initiative to remove FGIS personnel from working in, or in close proximity to facilities that are susceptible to potential dust explosions.

### 2. REPLACEMENT HIGHLIGHTS

This directive is revised to specify types of structures that are deemed not permissible for laboratory space and to update contact information. This directive supersedes FGIS Program Directive 9160.5 dated 3/29/10.

### 3. BACKGROUND

According to the Regulations (§ 800.46, (b) (2) under the United States Grain Standards Act (USGSA), and the Regulations (§ 868.21(g)) under the Agricultural Marketing Act of 1946 (AMA), as amended, when official services are performed at a grain elevator or commodity plant, the applicant for service must provide adequate and separate work space for the performance of the requested official service and related monitoring and supervision activities. FGIS considers work space "adequate" if it meets the space, location, and safety requirements specified in this directive and other instructions (e.g., Equipment Handbook, Mycotoxin Handbooks, Safety and Health Handbook, and the Occupational Safety and Health Administration (OSHA) guidelines, etc.).

"Adequate" inspection laboratories (work spaces) vary by locations depending on the laboratory's operation. Laboratories vary in size, layout, number of official personnel occupants, and hours of use per day. Some laboratories must meet specific requirements for work space where official personnel perform chemical analysis using hazardous materials (e.g., flammable liquids).

A laboratory designed for an export facility may be different from a laboratory designed to meet the needs of an inland elevator, a commodity plant, or a floating elevator rig. However, all laboratories provide FGIS with space to conduct analyses and they all house some of the same inspection related instruments, but beyond this similarity the laboratories may differ in purpose and, therefore, must differ in specific design. A good laboratory design and maintenance program will support the efforts of official laboratory staff to perform analytical assignments and will accommodate flexibility to address specific needs at a given location.

Additionally, inspection laboratories are often visited by various foreign and domestic groups and are often the first impression these groups have of the official inspection system. It is imperative that maintenance levels are such that the laboratory is constantly maintained in a “state of good repair.” This condition is achieved when the infrastructure components of the space provided by the facility owner for official service is properly maintained and replaced with components of the same or improved type upon failure, or on a schedule consistent with their life expectancy.

It is FGIS policy to develop and implement a comprehensive safety and health program that identifies and strives to eliminate employee exposure to existing and potentially hazardous working conditions and/or situations that are causing or likely to cause death or serious physical harm. A grain elevator or grain mill explosion is a serious concern for FGIS and its employees who are performing official duties (e.g., sampling, weighing, or inspection) within the head house, at the base of a head house, in or near any tall structures of these facilities. This concern also extends to areas in or near railcar dump pits, truck dump pits, and tunnels. For this reason facility owners must relocate or improve existing equipment or handling equipment (e.g., scale monitors and printers, diverter-type mechanical sampler delivery systems) to an FGIS laboratory or other FGIS acceptable location that is a minimum of 100 feet from these areas of concern. This action will enable FGIS personnel to perform their official duty away from these areas of concerns thereby eliminating their exposure to potentially hazardous working conditions and/or situations that could cause death or serious physical harm.

#### **4. GENERAL RESPONSIBILITIES**

- a. Facility Owners. Owners of facilities where official personnel provide service are responsible for overall upkeep and maintenance of inspection laboratories, including, but not limited to temporary portable and mobile buildings and dedicated work space in plants or on floating elevator rigs. Responsibilities include general maintenance and upgrades related to:
  - (1) Appearance of laboratory interior and exterior.
  - (2) Air, heating, dust collecting, and grain return systems.

- (3) Voice and telecommunications systems linking FGIS laboratory personnel to facility operators.
  - (4) Renovations to accommodate changes in workload or additional personnel.
  - (5) Renovations to accommodate new technologies and testing processes.
  - (6) Electrical and lighting systems.
  - (7) Maintaining laminate surfaces (see equipment handbook for countertop specifications).
  - (8) Pest management program (e.g., rodent and insect control) to aid in the prevention of contamination.
  - (9) Janitorial services scheduled at intervals to maintain the laboratory in a condition deemed suitable by official personnel to perform official activities.
- b. Official Personnel. Official personnel will respect the work space provided by the facility owner. They will clean and maintain their work areas in a manner that facilitates the performance of assigned duties and will not inflict harm or damage to facility property. FGIS will provide and maintain:
- (1) Chairs for official personnel.
  - (2) A desk and furniture for the supervisor's office.
  - (3) Computer equipment.
  - (4) External telephone and internet connections.
  - (5) Daily laboratory supplies (e.g., paper towels, soap, etc).

## 5. BASIC REQUIREMENTS

**Facility owners must provide FGIS with offices and laboratory space to perform requested official inspection and weighing related services at least 100 feet from the base of the head house, and where possible, 100 feet from the base of other tall structures, railcar and truck dump pits, and tunnels. FGIS has an expectation that new office and laboratory spaces will be permanent type structures. Trailers and retro-fitted containers are not allowed.**

Laboratory layout and size must support the minimal requirements and features necessary for FGIS to carry out the service requests of its applicants. FGIS, in conjunction with facility representatives, will determine the size of the laboratory based on conditions such as the quantity and variety of work performed, speed of operation, occupancy levels, equipment needs, hours of work, and file sample storage requirements. Facility owners must provide the following in a permanent type building (e.g., brick block, wood frame):

- a. Grading Area. Must comfortably accommodate the furniture, computer hardware, grading equipment, and any other items needed by official personal to perform their duties. Facilities may use automated weighing systems or sample delivery systems, or related apparatus so that FGIS personnel can safely monitor activities.
- b. Sampling Area. Must comfortably accommodate all sampling and testing equipment, have ample storage and counter space, an adequate dust collection/removal system, an adequate electrical supply, and will be separated from the grading area in order to contain the airborne dust not removed by the dust system in the sampling area.

Mechanical Sampling systems must deliver samples directly into an approved hopper located within the sampling area.

- c. Security. Official personnel must have control of all physical access points (including designated entry/exit points) to the laboratory's facilities, including the area containing the laboratory's Information systems.
- d. Private Supervisor's Office Space. Must accommodate an office size desk, desk chair, second chair, bookshelf, computer and printer. The space must have a door with a lock for privacy to allow for supervisory counseling of employees when needed.
- e. Break Room. Must accommodate a small table, microwave and refrigerator; and is separated from other rooms in the laboratory with a door, and must contain a sink with hot and cold running water.
- f. Restrooms. Must have separate restrooms for both male and female employees with a properly functioning exhaust fan, and must provide reasonable accommodations for persons with disabilities. Fixtures must be commercial grade.
- g. File Sample Storage Area. Must accommodate the number of file samples generated by the facility, based on the sample file retention period, and must meet the following requirements:

- (1) Walls, ceilings, and floors completely finished; cracks, crevices, missing molding, or other conditions which harbor dust and infestation must be avoided.
- (2) Shelving will be commercial quality and able to support the weight of the file samples without sagging.
- (3) Grated steel shelving is recommended, as it will not collect dust or harbor infestation.
- (4) Wood shelving painted with a high quality paint to facilitate cleaning is acceptable.

**Cold storage for file sample retention is recommended but not required.**

**Long term changes in workload may require an addition to existing file sample storage space.**

- h. Wet Laboratory. In addition to the requirements of the Safety and Health Handbook, Mycotoxin Handbooks, Notices, and this Directive, laboratories used for mycotoxin testing must be in a separate room of sufficient size to accommodate the various testing protocols expected at the facility and large enough to accommodate the expected workload.
- i. Electrical. Power supply must be adequate for all testing activities conducted in each laboratory area and must meet the standards in Chapter 3 of the Equipment Handbook.
- j. Heating, Ventilation, and Air Conditioning (HVAC). Proper HVAC is necessary to protect assets, particularly electronic assets such as computers, protein analyzers, and moisture meters. Facility representatives will ensure laboratory has sufficient cooling and heating. FGIS must have control of thermostats to maintain proper temperature/humidity for sensitive instrumentation and testing equipment.

## **6. LABORATORY INTERIOR APPEARANCE**

- a. Flooring. Industrial strength (high traffic resistant), light color flooring will be installed in the laboratory.

- b. Paint. Wall paint will be maintained to provide a clean, professional appearance throughout the laboratory. Rooms will be finished with a nonreflecting paint (light gray or green preferred). A flat white paint or an off-white acoustical tile may be used on ceilings, providing the white color does not extend below the level of the artificial lighting.
- c. Surfaces. Floors, walls, ceilings, and other surfaces will be smooth to reduce dust collection and facilitate cleaning. Missing molding, holes in walls or ceilings or other conditions that produce cracks, holes and crevices will be corrected by facility owners in a timely manner.

## 7. OTHER REQUIREMENTS

- a. Networking Closet. A dedicated area for network connectivity related equipment will be provided.
  - (1) Network closet will preferably be located inside the laboratory, but the existing building configuration may require placement outside the laboratory (e.g., in a public hallway leading to the laboratory).
  - (2) Network closet will contain all wires, cables, and equipment (e.g., routers, hubs, patch panel) pertaining to computer network connectivity and telephony.
  - (3) Area will be secure and accessible only to authorized personnel.
  - (4) New laboratories will be completely wired for network connectivity.
- b. Technology. Video, computer equipment and other hardware provided to FGIS by a facility must be of the same quality and maintained to the same degree as facility equipment of the same nature. Upgrades to hardware supplied to FGIS must coincide with facility upgrades (i.e., automated weight system monitors, computers, CCTV monitors, etc.).
- c. Emergency Lighting. The laboratory must employ and maintain an automatic emergency lighting system that activates in the event of a power outage or disruption and includes emergency exits and evacuation routes. Emergency alarm systems which warn personnel of a need to evacuate must be audible to personnel in the laboratory; if not, a separate alarming device must be installed in the laboratory proper.

- d. Pest Management Program. All efforts must be made to assure that the laboratory is free and remains free from insects, rodents, rodent excreta, extreme temperature conditions, and any other factors which may contaminate samples or pose a safety or health risk to official personnel.

## 8. COMPLIANCE WITH WORK SPACE REQUIREMENTS

**Facility owners must provide FGIS with work space complying with the general requirements of this directive and the specific requirements outlined in FGIS' Equipment Handbook, Aflatoxin and DON (Vomitoxin) Handbook, Safety and Health Handbook and other related instructions.**

- a. New Construction. Plans for construction of new laboratory space are subject to review and approval by FGIS Management prior to construction. The Safety and Health Office, Policies, Procedures, and Market Analysis Branch, and field office manager will review proposed plans and suggest ways to comply with the requirements contained in this directive and other instructions.
- b. Existing Laboratory. FGIS Management will inspect laboratories currently in operation within 60 days of the issuance date of this directive. FGIS will issue a report of compliance/non-compliance to the facility owner. Facility owner must immediately correct deficiencies that pose a safety or health risk to official personnel, minor deficiencies must be corrected in a timely manner; major deficiencies corrected within 18 months. This will allow for budget adjustments by the facility owner to complete major projects needed to bring the laboratory in compliance with this Directive.
- c. Periodic Laboratory Inspections. FGIS management will perform a thorough inspection of officially occupied facility-owned laboratory space at least once a year. These inspections will include a safety inspection performed by FGIS' Safety and Health Office or its designee. FGIS will report identified deficiencies in the quality, quantity, and functionality of the space to the facility operator for corrective action.

The FGIS field office manager responsible for providing service to a facility will determine when that facility does not meet the work space and safety requirements, whether the facility must expand the work space because of additional service requirements, and when work space conditions fail to meet requirements due to lack of proper maintenance.

- d. Facility Owners Unable to Meet Requirements. Any facility unable to meet all requirements of this directive and within the time frame indicated above in section "7b. Existing Laboratory" must contact FGIS' Deputy Administrator in writing explaining its inability to meet the requirements or the time frame specified in this directive.

**9. CONDITIONAL WITHHOLDING OF SERVICE**

Section 800.49 of the USGSA, and section 868.24 of the AMA regulations states that FGIS will conditionally withhold requests for official services when an applicant fails to meet the requirements prescribed in § 800.46, and § 868.21, respectively, which includes providing adequate working space.

**10. QUESTIONS**

Direct any questions concerning this directive to Pat McCluskey, Policies, Procedures, and Market Analysis Branch (PPMAB) at (816) 659-8403 or email at [Patrick.J.McCluskey@usda.gov](mailto:Patrick.J.McCluskey@usda.gov).



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