



TUCSON AIRPORT AUTHORITY
GROUND RULES
FOR CONSTRUCTION
AT
TUCSON INTERNATIONAL AIRPORT (TUS)
AND
RYAN AIRFIELD (RYN)
May 2018

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MEMORANDUM

TO: All TAA Tenants, Consultants and Contractors

FROM: Victor Palma
Airport Engineer, Planning and Engineering Division

RE: Ground Rules for Construction at Tucson International Airport and Ryan Airfield

DATE: May 1, 2018

Each year facilities at Tucson International Airport (TUS) and Ryan Airfield (RYN) are constructed, renovated, modified or demolished to suit the ever-changing needs of the aviation industry.

The elements of this work are often complex and may impact a variety of operations, security and safety considerations. Responsibility for the overall coordination of facilities construction, renovation, modification or demolition is assigned to the TAA Planning and Engineering (P&E) Division.

The P & E Division acts as the central point of coordination between tenants or TAA sponsored construction activities at TUS and RYN and the various TAA departments as well as agencies such as the Federal Aviation Administration (FAA), the City of Tucson, Pima County, the State of Arizona, and other agencies having jurisdiction over the airports.

Tenant development/improvement coordination is performed by the TAA P&E Division, Project Manager and can be reached at 520-573-4869. No tenant improvements may be undertaken without the review and approval of TAA.

The "Ground Rules for Construction" handbook provides a source of information to guide tenants, contractors and consultants in this complex process.

Please take the time to carefully review these requirements and ensure they are shared with all personnel who will be part of your firm's activities at TUS or RYN.

The goal of the TAA is to ensure that tenant/TAA sponsored development activities progress in a timely manner while ensuring that all requirements and standards, including safety and security are in compliance.

If you have any questions regarding these requirements or if we may be of further assistance, please call Victor Palma at 520-573-4853.

Changes to Document since last publication

1. Updates to all FAA Advisory Circulars to include the current version.
2. Airport operations changes to escorting in the movement area.
3. Additional information about badging procedures was added.
4. Phone numbers and emails have been updated to reflect the current change.

This section will be updated once all changes have been completed.

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PURPOSE

SCOPE:

It is the objective of the Tucson Airport Authority (TAA), certificated operator of TUS and RYN, to promote a safety culture on airports during construction. Since safety cannot be compromised, the TAA requires everyone play a vital role by complying with operational safety best practices while under construction.

This guide is not meant to cover all aspects of airfield construction projects, but is intended to serve as an outline of the major items required by the Federal Aviation Administration (FAA), Occupational Safety and Health Administration (OSHA), the Arizona Department of Transportation (ADOT), TAA Fire and Police Departments, the TAA Planning and Engineering (P&E) Division, TAA Airside Operations and other agencies having jurisdiction.

All other matters that apply during the course of construction of TAA projects will be coordinated by the TAA P&E Division as required. Any deviation from the instructions contained in this handbook must be coordinated with and approved by the TAA P&E Division.

The operations of engineers, architects and other technical personnel shall also be governed by these guidelines.

PROJECT RESPONSIBILITY:

Project responsibility varies from project to project. However, the general rules apply:

- TAA contracted projects shall be managed by TAA staff, who are responsible for security, safety and access to airport operations areas and facilities.
- Contractors shall be responsible for ensuring its employees under their control comply with OSHA standard work procedures.
- All requests for new addresses must be requested through TAA. Contact TAA's P&E Division, Administrative Support Assistant, (520-573-4845) to request a new address.

AIRPORT SECURITY

AIRPORT IDENTIFICATION BADGES: Anyone requiring unescorted access to the Air Operations Area (AOA), Security Identification Display Area (SIDA), Secured Area or the Sterile Area at Tucson International Airport must be under proper escort at all times or be issued a TUS badge authorizing them to be in that area. A person needing a TUS badge MUST present a work authorization form to the Airport Security Office (ASO) signed by an authorized representative to begin the badging process. The ASO is located on the baggage claim level of the airport center area. They may be contacted at 573-8156 regarding any badging process questions.

The badging process requires a complete background check of the applicant and may take up to three (3) weeks to complete. In addition to the background check an applicant MUST receive security training on airport operations. Applicants MUST schedule an appointment to begin the badging process and present two (2) forms of ID along with their Work Authorization Form to begin the process. Those forms of ID may be a state issued drivers license, social security card, birth certificate, passport or passport card. Failure to present required documents will delay the badging process.

Any person that is to have driving privileges must complete additional training with TUS Airside Operations.

Restricted areas for the airport(s) also includes certain utility rooms, operations areas, electrical rooms and terminal building areas not open to the general public and may be within the AOA, SIDA, Secured or Sterile areas. Entrance to these areas will be permitted on a case-by-case basis depending on need.

The contractor shall be solely responsible for all personnel working on the project and will ensure that personnel remain within the assigned work areas. Any person not cooperating with these requirements or the instructions of the TAA P&E Division, Construction Services Administrator/Project Officer will be required to leave the restricted area. In addition, their supervisor will be notified.

On TAA sponsored projects, the Contractor will be responsible for having sufficient staff and / or sub-contracted staff obtain a TUS identification badge with escort privileges, issued by the Airport Security Office. Contractor badged staff shall maintain positive control over non-badged workers in areas where all work is being conducted in the AOA or SIDA areas. All contractor badged employees are required to take and successfully pass the TAA Non-Movement Area Driver Training if work will be conducted on the airfield. Refer to the TAA Airside Driving Program for Tucson International Airport for more information pertaining to driving rules and regulations.

All tenant improvement sponsored projects must be approved by the TAA. Tenants are responsible for complying with all security, and driving rules and regulations. All badged personnel are required to adhere to the security rules and regulations

FIREARMS: Firearms are not permitted on Airport Property. Arrest and confiscation may result. This includes all persons issued a Concealed Weapon Permit by the Arizona Department of Public Safety.

CARTRIDGE ACTIVATED FASTENER DRIVERS: Cartridge activated drivers of any nature require the prior approval of and coordination with TAA Police Department.

ESCORTS AND ACCESS CONTROL: When any non-badged personnel require access to the restricted areas, they must be under approved escort at all times.

- **TAA Projects:** The contractor shall provide sufficient badged employees to maintain positive control of all workers. Generally, this requires the badged escort to maintain visual contact and be in close proximity to be able to talk with all escorted personnel. All work shall be coordinated a MINIMUM of 24-hours in advance of entry. Work shall be scheduled with the TAA P&E Division, Construction Services Administrator at 520-573-8014.
- **Tenant Improvement Projects:** If desired, the tenant may request that TAA provide escort personnel on a reimbursable basis subject to availability of escort personnel. All requests for TAA escorts shall be made a minimum of three (3) working days in advance of entry to allow the processing of a *Letter of Authorization* for escort charges. Contact TAA's P&E Division, Administrative Support Assistant, at 520-573-4845 to make the necessary arrangements.

Personnel responsible for manning AOA access points must be approved by the TAA Police Department, be in possession of a current TUS Stop List, and comply with specific inspection and access instructions.

FENCE GATES: Federal Aviation Regulations (FAR) Part 139 and Transportation Security Administration (TSA) 1542.203 require that the airport take appropriate action to ensure safeguards against purposeful, inadvertent and unauthorized entry of persons, vehicles or large domestic animals onto any airport operations area. Therefore, in compliance with these Federal Regulations, all gates to Tucson International Airport and Ryan Airfield shall be locked at all times. If not locked, a TAA P&E Division, Construction Services Administrator, Project Officer, or authorized contractor/tenant escort will be on duty at the gate and will possess a current Stop List. If a gate is to be utilized outside of its normal operating parameters such as staffed and monitored for entry a Change in Condition must be obtained through the Airport Security Coordinator and approved by the TSA. Change of Conditions may take up to 45 days for approval which may cause a delay in a project if not obtained prior to commencement of work. A TSA approved Change of Conditions must also be obtained if it is necessary to dismantle or relocate existing fencing establish temporary fencing, or fence off the construction site from the operational areas. Any temporary or interim fencing shall be approved by the TAA P&E Division prior to construction and will be inspected prior to the temporary fencing being used as a secure barrier. Temporary fencing shall be in serviceable condition, free of loose components, holes, excessive gaps between the bottom of the fence and the ground. All removable panels shall be fitted with a locking

device to prevent unauthorized removal or access. Any temporary gates are required to be secured with a TAA padlock that may be daisy chained to other approved padlocks.

All project related modifications or operational changes to the security doors or fencing surrounding the airport shall be approved in writing by the TAA P&E Division, Airport Security Coordinator and, if necessary, the TSA. All new fencing or modifications shall be in accordance with TAA Fencing Standards that are available at the TAA P&E Division upon request.

SECURITY OF CONTRACTOR YARDS / MATERIALS: The TAA is not responsible for the security of areas designated for construction yards or storage/staging areas. The contractor shall provide suitable means to secure these areas. If temporary fences are used, the contractor shall secure all gates before leaving. If TAA personnel discover an open gate after hours, the contractor will be required to respond to the location and secure the gate. The contractor shall be responsible for the general clean-up of the contractor's yard after project completion. Clean-up may include testing / disposal of contaminated soil material (i.e. oil or hydraulic spills).

If the contractor discovers items stolen from the designated construction yard or storage/staging areas, the contractor will promptly report the incident to the Airport Communication Center (520.573.8182), who will notify the TAA Police Department. No contractor equipment or spoils from a construction site shall be oriented next to a TUS perimeter fence in such a manner that it assists in the unrestricted access to the AOA or SIDA or Secured Areas.

PHOTOGRAPHY: Photos of any kind are not allowed to be taken while contractor, tenant or engineer personnel are working around security checkpoint areas or within the airport Security Identification Display Area (SIDA) and Secured Areas. Photographing these areas will result in the person(s) being asked to leave the job site immediately. Photos of sensitive security areas and access badges are strictly prohibited.

CONSTRUCTION SAFETY VESTS: In order for badged and unbadged personnel to be identified on construction sites, TAA has adopted a construction safety vest color standard to be utilized in AOA construction work zones. All badged personnel should wear yellow/green construction safety vests. Non-badged personnel should wear orange safety vests. This is only applicable for work within the TUS AOA, SIDA or Sterile areas that requires badged escorts.

AIRPORT SAFETY

CONSTRUCTION SAFETY AND PHASING PLAN: The project's Construction Safety and Phasing Plan (CSPP) is the primary tool to ensure safety compliance when coordinating construction activities. This document identifies all aspects of the construction project that pose a potential safety hazard to airport operations and outlines respective mitigation procedures for each hazard. The TAA is responsible for establishing and enforcing the CSPP. Contractors accept compliance with the CSPP by signing the Safety Plan Compliance Document prior to notice to proceed.

CONTRACTOR'S EMERGENCY CONTACT: Designation of a responsible contractor's representative, available on a 24-hour basis, including telephone number, must be provided to the TAA Planning and Engineering (P&E) Department prior to the start of construction. It is required that this person respond in a timely manner to all requests from TAA regarding emergencies connected to the project.

TAA EMERGENCY CONTACTS	
P&E Division Office	520-573-4853 (business hours)
P&E Construction Services Administrator	520-573-8014 (business hours)
Airport Communications Center	520-573-8182 (24 hours) or 911
Police/Fire Departments	520-573-8111 (24 hours) or 911

EMERGENCY DIRECTIONS: In case of any emergency on the airport, personnel will be advised by the TAA P&E Division, Construction Services Administrator, Project Officer, Construction Safety Officer, or uniformed personnel of any emergency action to be taken. It is expected that all personnel will follow directions immediately.

If, while working in the operational area, fire and/or police personnel respond to an emergency and take up positions along the taxiways, or any other area that may involve the project, all personnel will immediately stop work and be ready to move out of the area if directed to do so.

ACCIDENT AND INJURY REPORTING/EMERGENCY AID: Report all injuries and accidents, including any property damage, to the Airport Communications Center at 520-573-8182 or 911 and to the TAA P&E Division, Construction Services Administrator, Project Officer, or Construction Safety Officer immediately. A police report may be taken, as appropriate.

SMOKING: Smoking is prohibited at or in the vicinity of hazardous operations and materials, all aircraft parking and fueling areas and inside TAA buildings except where designated smoking areas are provided.

Smoking areas shall be designated by the TAA P&E Division, Construction Services Administrator. Where smoking is permitted, safe receptacles shall be provided by the contractor for smoking materials.

VEHICLE OPERATION WITHIN THE RESTRICTED AREAS OF THE AIRPORT:

All TAA unbadged supervisors of construction crews shall attend and pass the TUS Airside Drivers Training (Non-Movement Area), administered by the TAA, prior to operating vehicles within the Air Operations Area. This two-part course involves: 1. A computerized training and test administered by the Airport Security Office, and 2. Classroom training administered by the Airside Operations Department. See the TUS Airside Driving Rules and Regulations for specific information pertaining to this training.

All badged airside drivers will receive and are required to read, understand and fully comply with the TUS Airside Driving Rules and Regulations. All rules and regulations must be followed without exception. Failure to follow the rules and regulations outlined in the TUS Airside Driving Rules and Regulations may result in suspension or revocation of driving privileges. The TUS Airside Driving Rules and Regulations supersede any and all other driving rules and regulations, and are managed by the TAA Airside Operations Department.

The use of personal vehicles within the restricted areas of Tucson International Airport and Ryan Airfield is prohibited. Parking of personal vehicles in and around the terminal area is not permitted. The site for contractor's construction trailer and employee parking will be restricted to a pre-arranged location determined by the TAA P&E Division.

As part of the contractor's safety plan, the contractor should have in place proper procedures to ensure safe driving on the airfield. Since the airfield is a unique environment driving procedures, safety practices and recommendations shall be reviewed and discussed during the pre-construction meeting.

IDENTIFICATION OF CONSTRUCTION VEHICLES AND EQUIPMENT: All contractor / consultant vehicles and equipment shall be identified with permanent lettering, as outlined in the most current FAA Advisory Circular 150/5210-5, Painting, Marking and Lighting of Vehicles Used on an Airport. Vehicles must display a TAA-approved company logo that is at least 10" x 10" and is placed on the driver and passenger sides of the Vehicle. Company owned, but not lettered vehicles, shall be marked with magnetic signs with the company name and shall be at least 10" x 10" mounted on each side of the vehicle. Magnetic signs must also be easily readable from 20' away. All company vehicles admitted within the AOA shall have a copy of vehicle registration (or rental / lease contract) and insurance card in the name of the company.

All contractor / consultant vehicles and equipment operating in the Non-Movement Area shall be equipped with an operating amber beacon (steady yellow) or a flag on a staff located on the highest part of the vehicle so that the flag will be readily visible. The flag

should be not less than three (3) feet square consisting of a checkered pattern of international orange and white squares of not less than one (1) foot on each side and displayed in full view above and waving free of the top of vehicles and equipment.

All consultant / contractor vehicles and equipment operating within the Movement Area during the hours of darkness shall be equipped with flashing or a rotating beacon, or approved equivalent, and shall be located on the highest part of the vehicle or equipment.

Vehicles not properly equipped as described above will be denied access to these areas. Vehicles and equipment in the Movement Area are prohibited unless escorted by a TAA escort vehicle with a radio to communicate with the TUS ATCT.

The amber beacon and flag shall be in accordance with FAA A/C 150/5210-5D.

SAFETY SETBACKS: Construction work shall remain clear of runway and taxiway safety areas and runway approach areas:

Runway Safety Areas	
TUS - All:	500' wide and 1,000' beyond each end of runway
RYN:	150' wide and 300' beyond each end of runway
Taxiway Safety Areas	
TUS, Commercial:	171' wide
TUS, G.A:	Varies; confirm with Construction Services Administrator
RYN, All:	79' wide

Note: Widths are centered on referenced facilities.

Runway Approach Area Slope			
TUS		RYN	
11R	34:1	6R	50:1
29L	34:1	24L	20:1
11L	50:1	6L	20:1
29R	34:1	24R	20:1
21	34:1	15	20:1
3	34:1	33	20:1

Note: slope begins 200' from and at the same elevation as the runway threshold at centerline.

Construction work that is required inside safety areas shall be done at off-peak times when the runway or taxiway may be closed. All Movement Area closures shall be coordinated with the TAA Construction Services Administrator at least 48-hours in advance. TAA Airside Operations will initiate all Movement Area closures Notice to Airmen (NOTAM)) with the

FAA. If an Airside Operations Officer must be present, coordination of five (5) business days is required.

EMERGENCY ACCESS: The TAA Fire Department shall be contacted when construction could alter or block access routes and/or hydrant water supply.

	<u>Non-Emergency</u>	<u>EMERGENCY</u>
TAA Fire Department	520-573-8110	911
TAA Police Business	520-573-8182	911

Access for use of heavy fire equipment shall be provided to the immediate job site at the start of construction and maintained until all construction is completed. Free access from the street to fire hydrants and to outside connections for standpipes, sprinklers, or other fire extinguishing equipment, whether permanent or temporary, shall be provided and maintained at all times. Protective pedestrian walkways shall not be so constructed as to impede access to hydrants.

Arrangements shall be made so that fire fighters will have immediate access to the premises when called. The TAA Fire Department shall be contacted to establish access ways of sufficient dimension to allow maneuvering of fire equipment and apparatus.

No material or construction shall interfere with access to hydrants, siamese connections, or fire extinguishing equipment. During construction or demolition operations, free access to permanent, temporary or portable first-aid fire equipment shall be maintained at all times.

Shut down of any water supply system on airport properties shall be coordinated with the TAA Fire Department through the TAA P&E Division, Construction Services Administrator or Project Officer, 520-573-8014, 48-hours prior to interruption of service.

STORAGE OF HAZARDOUS / FLAMMABLE MATERIALS: The use and storage of flammable material must have PRIOR approval of the TAA Fire Department. The Contractor shall follow OSHA/NFPA requirements for the storage of hazardous / flammable materials. Combustible waste material and rubbish shall not be stored or allowed to accumulate within the building or in the immediate vicinity, and shall be removed from the premises as rapidly as practicable. All leaks/spills of petroleum products or hazardous materials will be immediately reported to the Fire Department, Director of Environmental Services and the TAA Construction Services Administrator / Project Officer. It will be the contractor's responsibility to have them cleaned up and properly disposed of off airport property and to provide TAA with disposal records.

Rubbish or debris shall not be burned on TAA properties.

Asphalt or tar kettles shall not be used inside or on the roof of any building. There shall be at least one approved fire extinguisher of a minimum 20-B:C classification within thirty (30) feet of each asphalt kettle during the period such kettle is in use, and one additional 20-B:C classification fire extinguisher on the roof being covered. Kettles will be equipped with tight fitting covers, and an attendant will be available at all times while the kettle is in operation.

THE CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT): The Contractor shall be familiar with OSHA standards that currently contain lockout/tagout related requirements and employ all OSHA required measures for the control of hazardous energy (lockout/tagout) during the execution of the work performed under the Contract Documents.

A Pre-Event Meeting shall be held on site during normal business hours at least forty-eight (48) hours in advance of the work with the Contractor, TAA, and the Design Professional to review the work to be undertaken, to familiarize all parties with existing system and controls that will be shut down and restarted, and to confirm lockout/tagout procedures to be employed. When feasible, TAA prefers that a joint lockout/tagout procedure be used. The contractor shall provide a multi-position hasp and both the Contractor and TAA will attach their own separate locks. No system shall be energized until such time that both parties have removed their locks, indicating a safe situation to energize. If the work involves the Airfield Lighting System the persons responsible for lockout/tagout will make indicated entries in the logbook located in the Power Vault. In the event that work will be done after hours, TAA will be on site or other arrangements will be made.

OPEN FLAME: Any open flame operation which can include but not limited to welding, or cutting torch operations will require a permit issued by the TAA Fire Department. This no-cost permit will be issued following a site inspection. Permits will be issued for the duration of the job. The contractor is responsible for following OSHA requirements regarding welding, along with all safety precautions as stated on the Cutting and Welding permit which includes providing fire safety equipment, i.e. a fire extinguisher – minimum size: 10 lb. To ensure workers are in compliance with the permit regulations, the TAA Fire Department will conduct spot inspections during the job. At the end of the job the hot work permit will be collected by Construction Services Administrator or Project Officer. All hot work permits will be collected at the end of each month from the P&E Division to file. Request may be placed by calling the Airport Communications Center at 520-573-8182 or via the TAA P&E Division, Construction Services Administrator or Project Officers by radio.

HAZARD COMMUNICATIONS: Tenants and/or contractors shall comply with all provisions of the OSHA Hazardous Communications Program. Safety Data Sheets (SDS) shall be provided for all required materials used at the site. These shall be placed in a central location at the site in an organized manner. If there are two non-hazardous materials combined into a third hazardous one, specific SDS sheets shall be provided.

SDS sheets shall be checked by the TAA P&E Division, Construction Services Administrator or Project Officer prior to any operation in or around buildings to ensure that all safeguards have been provided. In no case shall the work interrupt normal business operations unless prior arrangements have been made.

The TAA Fire Department shall be notified by the P&E Division, Construction Services Administrator, Project Officer, or Construction Safety Officer prior to the start of the application of paints, primers, varnish, sealer, etc. particularly when spray application is used. THIS IS MANDATORY.

POTENTIALLY CONTAMINATED SOILS OR MATERIALS: Contractor shall immediately notify TAA's Director of Environmental Services, by phone 520-573-4805 of Contractor's discovery of any potentially contaminated soil or any other contaminated material ("contamination") while performing work at TUS or RYN. If the Director of Environmental Services is unavailable, the contractor shall call the Airport Communications Center at 520-573-8182 and request assistance contacting TAA Environmental Services personnel.

The contractor shall not continue work in the area of the contamination until TAA's Director of Environmental Services has made a determination of the nature of the contamination. If such contamination is the result of a release by the contractor or the tenant, the entity responsible for the contamination will be required to remove and properly dispose of the contamination in compliance with all applicable federal, state, and local regulations and guidelines. In addition, the entity must provide TAA with required documentation of proper disposal. If such contamination is not the result of a release by the contractor or the tenant, TAA will be responsible for the removal and proper disposal of the contamination. In such event, the contractor will cease all work in the area of the contamination until such time that TAA's Director of Environmental Services has completed the removal of the contamination. Any contamination removed by TAA shall be considered an unsuitable material and defined in the Contract Documents and will be the responsibility of the contractor and/or tenant to replace with suitable material.

SPILL REPORTING AND CLEANUP: Contractor shall immediately report all spills to TAA's Airport Communications Center at 520-573-8182. Contractor shall provide the following information:

- Identification of the spilled substance (if known),
- Approximate location of the spill,
- Estimated spill volume or area,
- Actions being taken to contain and clean up the spill,
- Need for additional assistance,
- Name and phone number of person reporting the spill.

A spill is defined as a discharge of a hazardous material or pollutant that may have an adverse effect on public health or the environment. Contractor shall be responsible for the immediate clean-up of all spilled substances and spill-impacted materials. Contractor shall dispose of all spilled substances and spill-impacted materials in compliance with applicable federal, state, and local regulations and guidelines. In addition, the Contractor shall provide TAA with required documentation of proper disposal.

BLASTING: Blasting is prohibited on any TAA properties.

HEARING PROTECTION: Contractors shall be required to abide with OSHA protocols in the protection against the effects of noise exposure when working on airport property.

Alert all personnel to the potential danger of jet blasts to persons and property, and emphasize the importance of using caution in operational areas. The velocity of jet blasts at take-off thrust may exceed that of tornadoes and hurricanes.

AIRCRAFT	DISTANCE BEHIND AIRCRAFT		WIND VELOCITY
DC-9	10	FEET	200 MPH
DC-9	100	FEET	100 MPH
727	10	FEET	700 MPH
727	100	FEET	180 MPH
747	10	FEET	700 MPH
747	100	FEET	260 MPH
DC-10	10	FEET	700 MPH
DC-10	100	FEET	260 MPH

SAFETY BARRICADES: Open trenches, excavations and stockpiled material at the construction site shall be prominently marked and barricaded in accordance with FAA Advisory Circular 150/5370-2G: *Operational Safety on Airports During Construction*. All barricades used on the airport must be weighted or staked and tied sufficiently to prevent wind or jet blast from blowing the barricades into aircraft, vehicles, pedestrians or adjacent facilities. The contractor shall submit a barricade plan to the TAA prior to construction. **See: TAA's Barricade Procedure for Construction and Maintenance on Tucson International Airport and Ryan Airfield** available at the TAA P&E Division. In addition to the abovementioned, the contractor shall be familiar and comply with all OSHA requirements for trenching and excavations.

Stockpiled material shall be constrained in a manner to prevent movement resulting from aircraft blast or wind conditions. The location of stockpiles shall be approved by the TAA P&E Division.

Debris and loose material capable of causing damage to aircraft landing gear, propellers, or being ingested in jet engines, shall not be placed within or allowed to be blown into active operational areas. Material tracked on these areas, such as dirt, mud, etc., will be removed continuously during the work project.

TEMPORARY WIRING AND LIGHTING: All temporary wiring, including extension cords, for construction use shall be effectively grounded in accordance with the National Electrical Code.

Temporary lights shall be equipped with guards to prevent accidental contact with the bulb, except that guards are not required when the construction of the reflector is such that the bulb is deeply recessed.

Temporary lights shall be equipped with heavy-duty electric cords with connections and insulation maintained in safe condition. Temporary lights shall not be suspended by their electric cords unless cords and lights are designed for this means of suspension. Splices shall have insulation equal to that of the cable.

Care shall be taken to ensure that all temporary lighting is removed before suspended ceiling systems are installed.

Temporary jumper cabling and light fixtures for airfield use shall be connected and maintained in accordance with the project contract documents and FAA Standards.

EQUIPMENT SERVICE AREAS: Service areas for construction equipment shall not be located within buildings or in the vicinity of hazardous operations or materials or aircraft parking or fueling areas. No disposal of waste oils, grease, fuel, etc., shall be permitted on TAA properties. All spills shall be IMMEDIATELY removed by the contractor and properly disposed of off airport property and disposal records provided to TAA P&E Division.

CONFINED SPACE PROGRAM: Any person entering a confined space as defined by OSHA 29 CFR 1910.146 shall follow their company's confined space program. The program shall be in accordance with OSHA Rules and Regulations. The contractor will be responsible for their employees Confined Space training and certifications. TAA may request copies of training and certifications at any time.

During the pre-construction meeting a TAA representative will inform contractor of workplace permit spaces and hazards that have been identified from TAA experience with the confined spaces on TAA property. (Tower tunnel, manholes, fuel pits etc.). The contractor will provide TAA within 7 days of the Notice to Proceed a copy of their Confined Space Program and an example of a Confined Space Permit.

TAA routinely inspects confined spaces and has identified them as being either Permit-Required or Non-Permit Required.

OSHA defines a Permit-Required Confined Space as having the following characteristics:

- The space has the potential to contain a hazardous atmosphere.
- The space may contain a material that has the potential for engulfing the entrant.
- The space has the configuration that may trap the entrant.
- The space contains a recognized serious health and safety hazard.

A Non-Permit Confined space means a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.

The contractor shall coordinate with TAA prior to entering any confined spaces. The contractor will call the TAA Airport Communications Center (520-573-8182) with the location, duration and if it is a "Permit Required," or "Non-Permit" confined space entry. The Airport Communications Center (will relay information to the TAA Fire Department of confined space entry activity in case of emergency.

The first time a contractor enters a Permit-Required Confined Space on the jobsite, the TAA Fire Department will meet the contractor at the space and review conditions with them. After that point (and on any Non-Permit Spaces), the TAA Fire Department will complete random checks on the contractor's confined space permit/program.

The contractor shall keep a record of all atmospheric testing, checklists, permits, etc., at the worksite. The contractor will call the Airport Communications Center (520.573.8182) once

the work is completed to advise the entry has been terminated. The contractor will also call the Airport Communications Center if any changes in condition have been noticed.

TENANT IMPROVEMENT

TENANT IMPROVEMENT STANDARDS: TAA has TIA TUS Tenant Improvement Standards and TAA Tenant Signage Guidelines. These requirements can be found on the TAA website, www.flytucsonairport.com, or by contacting the TAA's Tenant Improvement's key contact at lbehr@flytucson.com or 520-573-4869. All tenant construction; improvements and signage shall incorporate these requirements as appropriate. A hard copy can also be obtained at the TAA P&E Division.

MISCELLANEOUS REQUIREMENTS

TEMPORARY AND PERMANENT UTILITIES: Unless other arrangements are made with TAA, the Contractor shall arrange for and pay for all utilities, i.e., water, electric, phone hookups. A fire hydrant will be designated in writing from the TAA P&E Division, for construction water use. A meter shall be obtained from the City of Tucson, Water Department by the contractor. The locations of all service points shall be approved in writing by the TAA P&E Division.

LABOR DISPUTES: If any labor dispute, picketing or demonstrations take place during the contract period, the contractor must contact the TAA Police Department, Airport Security Coordinator, 520-573-8133, and request a First Amendment Packet. Permission to exercise First Amendment Rights is required prior to any activity. Upon approval of request to exercise First Amendment Rights, the contractor will be issued an Activity Permit, that must be kept with them at all times, stay in the designated areas, and wear the airport-issued First Amendment Activity Permit badge at all times they are on airport property.

HAUL ROUTES: Routing of haul traffic shall be coordinated with the TAA P&E Division, Construction Services Administrator (520-573-8014). All haul routes shall be approved in advance by the TAA P&E Division.

BARRICADES: *See: TAA's Barricade Procedure for Construction and Maintenance on Tucson International Airport and Ryan Airfield.* A copy is available at TAA P&E Division.

CRANES: *See: TAA's Procedures for Notification of Crane Use at Airport or Within Airspace of Airport.* A copy is available upon request at TAA P&E Division. Note that a forty-five (45) day notification is required for FAA plus an additional three (3) business days to allow TAA staff investigation, FAA form 7460-1 preparation, and notification procedures. All cranes will be flagged during the day and lowered during official sunset to sunrise if they are not in use. Cranes must be lighted during night or times of limited visibility. *See: FAA Advisory Circular 70/7460-1, Obstruction Marking and Lighting.*

LOCATIONS OF EXISTING FACILITIES: The tenant/contractor shall ensure that all existing utilities and facilities are properly located and marked prior to construction. A "Blue Stake" meet shall be arranged by the tenant/contractor and the TAA P&E Division, Construction Services Administrator (520-573-8014); this must be in advance to allow time so that arrangements may be made for the TAA Maintenance Department and other agencies to locate airport related/owned facilities. TAA Maintenance Department personnel will aid in the location of facilities but are not available to perform work on the project, trouble-shoot or loan equipment.

WEEKLY PROGRESS MEETINGS (TAA Contracted Projects): Weekly progress meetings shall be held to ensure that all parties are aware of the nature of the upcoming week's construction. TAA P&E personnel may attend these meetings as appropriate to monitor scheduling and operations. TAA P&E Division, shall be provided with an updated weekly schedule.

CONSTRUCTION ADJACENT ACTIVE PAVEMENTS: The pavement edges of active pavements (taxiways, runways, aprons) shall not exceed three (3) inches difference in elevation between finished pavement grade and adjacent shoulder grades. A 1:1 taper shall be included in the 3" drop-off. The pavement open to traffic shall have no holes or humps.

CONSTRUCTION STORM WATER POLLUTANT PREVENTION PROGRAM: TAA participates in the United States Environmental Protection Agency (EPA) construction storm water pollutant protection (SWPPP) permitting program. TAA has a site-wide construction SWPPP program for both Tucson International Airport and Ryan Airfield. All construction projects exceeding one acre must comply with the EPA construction SWPPP permitting requirements.

The Contractor will need to prepare a site-specific construction SWPPP plan and a Notice of Intent (NOI) form and submit them to TAA for review and approval. The approved NOI must be submitted to EPA 72-hours before starting work. A copy of the site-specific construction SWPP plan must be available at the job site.

Required Permit	Time Frame	Information From	Reference
Welding	Daily	TAA Fire Department	Page 7
Construction Water	2 working days	TAA P&E	Page 10
SWPPP / NOI	3 working days	TAA P&E	Page 11