Safety and Environmental Newsletter

February 2023 — 130th Edition

National Weather Service

FLOOD SAFETY
FOR YOU AND YOUR FAMILY

BEFORE A FLOOD

- ✓ Stay informed: Visit weather.gov or tune into your local news for the latest forecast.
- ✓ Determine whether your home, school or work is in an area likely to flood.
- ✓ Learn which roadways are likely to flood and find an alternative route so you can avoid them.
- ✓ Create a communications plan so your family will know how to connect during an emergency.
- ✓ Assemble an emergency kit.
- ✓ Prepare for possible evacuation. Pack your bags and include items for your pets so you are ready to leave at a moment's notice.
- ✓ Charge all essential electronics.
- ✓ Be Proactive: Leave before the flooding starts to avoid getting stranded.

DURING A FLOOD

- ✓ Stay informed: Tune into your local news for updates on flooding in progress.
- ✓ Get to higher ground if you are in an area that is subject to flooding.
- ✓ Follow evacuation orders and heed warning signs.
- ✓ If you have time before you evacuate, disconnect utilities and appliances.
- ✓ Avoid floodwaters: It is NEVER safe to drive or walk through them.

AFTER A FLOOD

- ✓ Stay informed: Tune into your local news for updates on affected areas and the safety of your drinking water.
- ✓ Avoid floodwaters: Standing water can hide chemicals that can make you sick, power lines that can cause electrocution and sharp debris that can seriously harm you.
- ✓ Avoid disaster areas: Your presence may hamper emergency operations.
- ✓ Heed road closure and cautionary signs.
- ✓ Wait for the "all-clear" before returning to an area that was impacted by flooding.
- ✓ Contact your family and loved ones to let them know you are okay.

Image from the FEMA Photo Library

For more information, visit weather.gov/safety/flood

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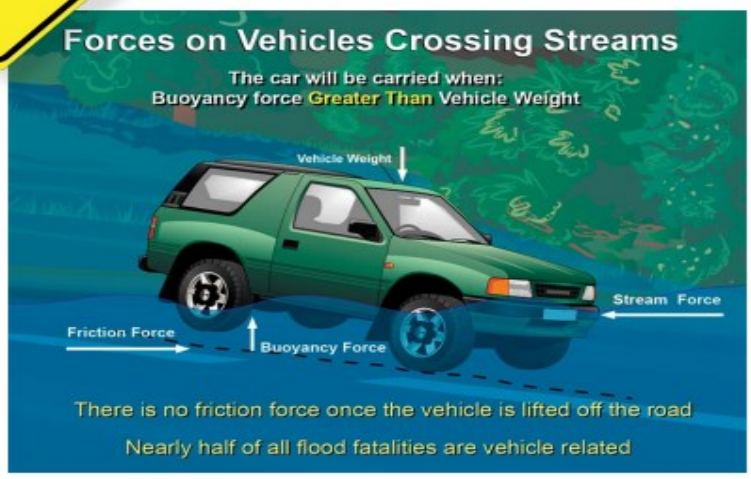
TURN AROUND DON'T DROWN ®

MOST FLOOD-RELATED DEATHS AND INJURIES COULD BE AVOIDED IF PEOPLE FOLLOWED THIS SIMPLE ADVICE:

Turn Around Don't Drown®. More than 50 percent of flood-related deaths are due to someone driving or walking into floodwaters.

- ✓ **6 INCHES OF FAST-MOVING WATER** can knock adults off their feet and sweep them away.
- ✓ **12 INCHES OF MOVING WATER** can carry off a small car.
- ✓ **18 TO 24 INCHES OF MOVING WATER** can carry away larger vehicles including trucks, vans and SUVs.

If you come to an area that is covered with water, you may not know the depth of the water or the condition of the road or ground underneath. This is especially true at night, when your vision is limited. Play it safe. Whether driving or walking, any time you come to a flooded area, Turn Around Don't Drown®.



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Do I need an air permit for this?

Whether you are a program manager, a maintenance technician, a facilities rep, or even a visiting customer, you might need an air permit for your project. In a lot of instances, such as a new chemical process or the installation of a new generator or gas-fired water heater, this might seem obvious to the end user. However, there are also other situations, such as replacement of a fuel-burning system with an identical unit, changing the fuel or chemical used for a system, or use of a portable/mobile power source, that might also require analysis to determine whether or not an air permit is required.

What is an air permit?

The Clean Air Act (1970 with major revisions in 1977 and 1990) establishes the overall standards for maintaining and improving air quality and preventing the adverse impacts of air pollution on people and the environment. The Environmental Protection Agency then establishes federal regulations and requirements based on these standards. Each state is required to develop and maintain a State Implementation Plan (SIP) explaining how it will meet the standards for air quality set in the federal Clean Air Act. States, in turn, rely on their departments of environmental quality or health to implement SIPs through state regulations and adopted federal requirements. Note that states must be at least as stringent as the federal rules. In fact, states can have more stringent requirements, such as Maryland's requirement for emission testing of vehicles.

Regardless of the regulatory driver, one common element of all state air quality programs is the requirement to permit or register sources of air pollution. The owner of an air pollution source must perform an analysis of the regulatory requirements affecting the source. Based on that analysis, they will either request that a source be exempted from permitting or determine that the source is subject to permitting. Sources subject to permitting require a permit application to be submitted to the local authority. Sometimes the permitting authority should be contacted before purchasing equipment or changing a process to ensure that there are no requirements (cost or operational) that would make a certain type of equipment non-viable. Permits must be acquired before any air pollution source is installed by the owner.

Environmental Contributor: Mike Bonsteel

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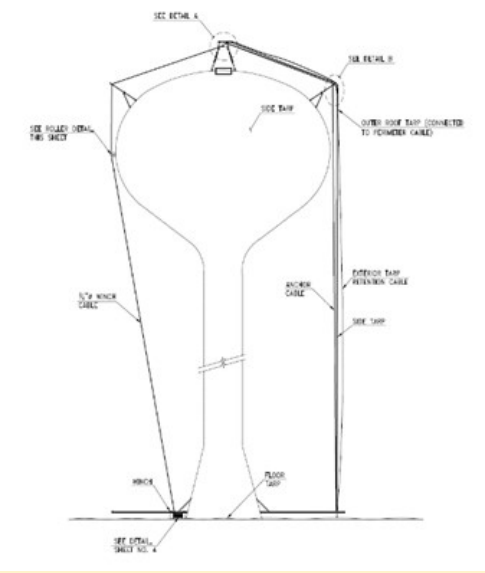

What sources need air permits?

The types of sources subject to air permitting varies depending on many factors. Some of these include:

- Type(s) and/or volume of fuel or chemicals used;
- Temporary or permanent nature;
- Size or power rating of the source;
- Location of the source; and
- Proposed amount of time of throughput.

Typically, sources are regulated because they have the potential to emit large amounts of criteria pollutants (like oxides of nitrogen or particulate matter) or even small amounts of hazardous (sometimes called toxic) air pollutants. As a result, air regulations and permitting requirements can apply to a wide variety of sources. It is best to first check with Code 250 to determine whether or not an air permit could be required before planning for or ordering a piece of equipment or chemical. This is especially true because the permitting process can be lengthy and, again, must be completed *before* the source is installed.

How do I know if my source needs an air permit?

The first step for any project that involves new equipment or chemicals, replacement of equipment or chemicals, construction, or demolition is to submit a MOSI Environmental and Safety Review (E&SR) checklist. This can be easily done by accessing the following website and clicking "Submit New Project":

https://mosi.ndc.nasa.gov/EnvironmentalSafetyReview/index.xhtml

This simple process allows you to enter general information about your project and environmental staff to ask follow-up questions to determine what kinds of permissions or permits (if any) are required.

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Some recent examples of projects submitted through the MOSI E&SR checklist process that received guidance (and sometimes assistance) for air permitting requirements include:

- Green hydrazine ops at V-055 (Code 597)
- Grit-blasting of the N-165 water tower (Code 228)
- Metal sintering machine at E-109 (Code 548)
- Temporary boiler use for the E loop (Code 227)
- Mobile radar compound construction (Code 840)
- Relocating the D-008 generator (Code 228)

In most of these cases, air permitting was determined *not* to be required, but in some cases that was true only as long as steps were taken by the source owner/operator to limit the time, use, or throughput of sources. In a few cases, additional documentation and/or permitting was determined to be required. Each case is different, which is why it is important that projects are reviewed.

In addition, you may own or operate a piece of equipment that was installed without a permit applicability review. In these cases, it is imperative that you contact Code 250 to ensure the source is evaluated ASAP.

Of course, if you have specific questions about your project, or would like more information about the possible permitting requirements for a potential project, feel free to contact Code 250 Air Program Manager, Mike Bonsteel, at michael.c.bonsteel@nasa.gov. When in doubt, ask! If you're not sure, just call! The GSFC Air Quality Program is dedicated to helping others at the Center be more aware of permitting requirements and to working with you to meet mission requirements without regulatory delays, violations, fines or sacrificing the excellent quality of our air.

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