

The Aftermath of Arson: Packing a Freezer Trailer, and Other Tidbits

INTRODUCTION

In February 1997 there was an arson at the Mississippi County Courthouse in Missouri. The disaster recovery was headed by Joan Feezor, who is a Field Archivist with Missouri's Local Records Program. Joan lives in Charleston—so this fire destroyed her own courthouse.

Dozens of people were involved in the disaster recovery, which extended over the several weeks from February through April. Some aspects were ordinary and some were unusual.¹ This presentation focuses on areas that were new to me—the trucking and food service industries.

I will start with an outline of how the courthouse records were handled. Then there will be details on trailers, forklifts, pallets and the like. Finally, there will be a couple of suggestions based on our experience of last year.

MISSISSIPPI COUNTY COURTHOUSE RECORDS

The Mississippi County Courthouse was burned early in the morning on February 10, 1997. The second floor and the attic of the building were involved in the fire, and a portion of that area collapsed to the first floor. Some records were retrieved from office file cabinets and vaults. However, most of the records were stored in basement vaults, and their damage was limited to the effects of water and mold.

There were two initial obstacles to disaster recovery. One involved access to the materials. The arson investigation (which was conducted by the Bureau of Alcohol, Tobacco, and Firearms) sealed the site for 3 days. Once access was allowed, to a restricted group of people, the building conditions impeded records recovery. The first records were removed from the courthouse on February 18.

The second obstacle was a lack of money. The county's insurance provided only \$2500 on the entire contents of the building.

These two factors—limited access and limited funding—shaped the way disaster recovery was initiated and how it evolved.

Some record books and files were dried in a fairly traditional manner. Books were stood in front of fans, or placed outdoors on pallets during sunny days. Documents were spread on shelves and files were interleaved or opened up to air dry.

However, most of the county records were frozen, and eventually went to a vacuum facility for drying. The freezing was possible through the generosity of Pullen Brothers (specialists in the transportation of frozen food) whose owners are natives of Southeast Missouri. Pullen Brothers donated the use of a new freezer trailer, which stayed on site for five weeks.

The county highway department provided ongoing maintenance for the trailer. The temperature and other controls were checked daily, and diesel fuel was supplied every other day. The trailer used 10-15 gallons of diesel fuel a day, during a season when outdoor temperatures never went above 60° F. As the trailer was not entered very often, it was easier to maintain the desired temperature.

The very wet (and extremely moldy) records were put in new cardboard boxes and loaded on pallets in the trailer. Because the temperature was set on minus 5° F. and the boxes were added one layer at a time, the boxes froze before the cardboard became soggy from their contents.

Large record books were stacked directly on pallets and some small books were frozen in cubic foot boxes.

The given of this situation: records were removed from the courthouse slowly, over a period of several weeks.

The benefits of this situation: no expense for plastic cartons or milk crates; the records did not need to travel to a freezer.

The limitation of this situation: by putting the records in the trailer in layers, the space was not filled in the best way. Some partially filled boxes were crushed under full boxes, and some stacks of material tipped over.²

After everything was loaded into the freezer trailer, we benefited from the space and expertise offered by Fleming International. This is another local business, which has a half million square foot cold storage facility.

The Pullen Brothers trailer was brought to loading dock 72 at Fleming and all the pallets were removed from the trailer. Then the pallets were properly loaded, stabilized with hand wrap, and returned to the trailer. The record books were placed in watermelon crates, which are slatted wood walls placed on a pallet.

The pallets were securely placed in the trailer so they could be transported to the vacuum facility. The trailer was completely filled when it arrived at the Fleming dock. Four hours later, after skilled reorganization, the trailer was only two-thirds full.

TRAILER

If you need to freeze records after a “water event,” vendors can be called to handle the whole process. Alternatively, the salvage process can begin by renting a freezer trailer. What we usually refer to as a truck is actually two units—what is pulling the load (a truck or a tractor) and what holds the load (the trailer). A trailer can be set up at your site and the truck will return when it is time to move your frozen paper to the drying facility.

Trailers are available in many lengths from about 30 feet to 53 feet. The 48 and 52 foot lengths have been the most common in the United States, with a width of 96 or 102 inches. These are outside dimensions for a trailer. The inside dimensions depend on the insulation/wall thickness; subtract from 4.5 to 10 inches in each direction to get the space available for the load.

Each state has restrictions on truck/trailer size and weight, and there are federal laws which govern loads on bridges. Keep this in mind if your paper is very saturated with water. While the height of the trailer (usually 114 inches) may allow for a second layer of pallets, the resulting weight may be excessive.

Trailers with refrigeration units are also known as reefers. Trailers are made by many manufacturers; the refrigeration unit can be added at the plant or as a separate step. I am told that the best refrigeration units are made by Carrier and Thermo King. A reefer can be used for freezing or refrigeration—it can be set for minus 20 to plus 80° F. In order to minimize fuel costs, rent a late model reefer with good insulation and with Cycle Sentry (which runs the refrigeration unit only when necessary).

The government recognizes mold as a normal occurrence on produce, and there are accepted cleanup procedures for mold. So trailers and cold storage facilities can be used for moldy books and papers. If your disaster has contaminated the records with other products (fuel oil, river water, sewage, etc.) be sure to discuss this with the owner of the reefer.

PALLETS

Your wet files and books (whether they are in record boxes, milk crates, or other containers) are placed onto pallets. Most pallets are made from wood, but plastic pallets are now available. The standard pallet size is 40 by 48 inches. But even “standard” pallets vary greatly in quality of materials and type of construction. Try to obtain pallets which are full sized, properly braced, and made of wood that is not full of knots and splinters.

Pallets can be lifted from their short side or their long side. The 40 inch side of a wood pallet has an opening which is the full height and width of the pallet. The 48 inch side has slits cut into the side braces; these slits are narrower and shorter.

PALLET MOVERS

Pallets are moved with one of three machines: forklift, pallet jack, or power jack. Perhaps your disaster site does not have a loading dock, so you are putting pallets in the trailer and loading them by hand. Still, a pallet mover will probably be used when the trailer is unloaded.

Forklifts can be very heavy (3,000-24,000 pounds) even when they are not carrying a load. Your trailer is probably designed to accommodate a forklift; be sure that your disaster site or staging area is also capable. Remember the overall weight of the machine, and that the weight is concentrated in the few inches where the tires touch the ground.

Your forklift operator should be trained on this machinery. One aspect of training is to understand and follow the data plate information. Every forklift has a plate which indicates its capacity at the given load center, including how high the load can be lifted.

A forklift has thin forks, which can be inserted into either side of a pallet. All forklifts have a tilt feature, which helps to stabilize a pallet that is picked up from the 40 inch side. Some forklifts also have adjustable forks; either or both can be moved in order to balance a pallet that is heavier on one side. Another handy option is the ability to move the whole fork from side to side; pallets can be moved into tight places without having to drive the forklift precisely.

A pallet jack (and its motorized version—a power jack) is used in stores and on loading docks. It is a very scaled down cousin of the forklift, and is used to move smaller numbers of pallets, usually over shorter distances. The operator pulls the pallet instead of driving from inside a roll cage.

The forks of pallet jacks and power jacks are thick, so pallets can be lifted only from their short side.

USING THE EQUIPMENT

Pallets should be filled so that the load is “tied in”—the boxes or crates are in a different configuration on alternating layers. This is more stable than towers of boxes piled one on another. Figure 1 shows two layers of cubic foot boxes on a standard pallet. The ten boxes per layer are somewhat larger than the pallet.

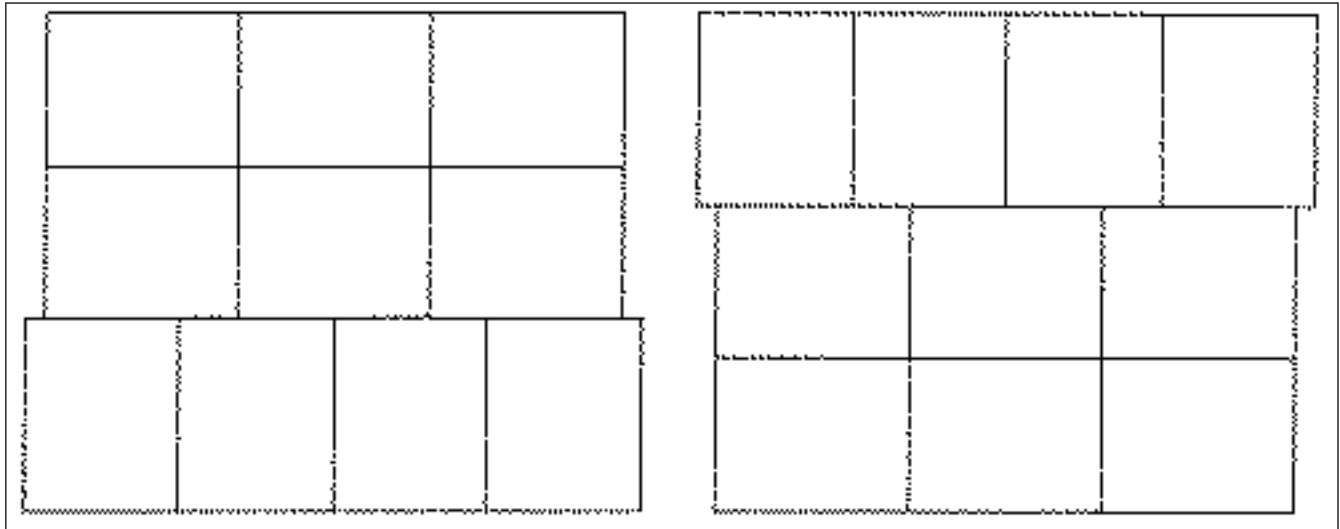


Fig. 1.

Pallets are often stacked with five layers of record boxes. The vendor who is doing the drying might specify another arrangement which could be accommodated. If some boxes are lighter or less than full, they should be on the top layer of the pallet.

After a pallet is filled it should be surrounded by hand wrap, which is also known as stretch wrap. This is a thin but strong plastic film that is rolled around the pallet and its contents. Hand wrap is a safeguard against shifting while the trailer is on the road.

Books, whether in a watermelon crate or directly on a pallet, are also staggered or “tied in.” The watermelon crate retains its shape by having the contents pressing against the walls. The height to which books are stacked on the pallet will depend on their size and other considerations. Again, hand wrap is used to stabilize the load. [It should be clear that this whole procedure is hard on books; it is used only for record books which will be microfilmed and discarded after drying.]

There are three ways in which pallets can be put onto trailers that are 102 inches wide. (Narrower trailers have fewer options.) Access to the reefer is through the back, so pallets fill the trailer from the front to the back.

1. The pallet is picked up from its 40 inch side and loaded with this short edge facing the trailer door. Fewer pallets will fit on a trailer with this configuration. But it allows

pallets to be moved with a pallet jack, in case a forklift is not available at the disaster site or at the destination of the trailer.

2. The pallet is picked up from its 48 inch side and loaded with this long edge facing the trailer door. More pallets will fit on the trailer in this manner, but it depends on a forklift being available to move the pallets. And it

requires that the pallets be packed without any contents overhanging the sides. As we saw above, a pallet load of cubic foot boxes is somewhat larger than 40 by 48 inches. So you would need different record cartons to take advantage of this possibility.

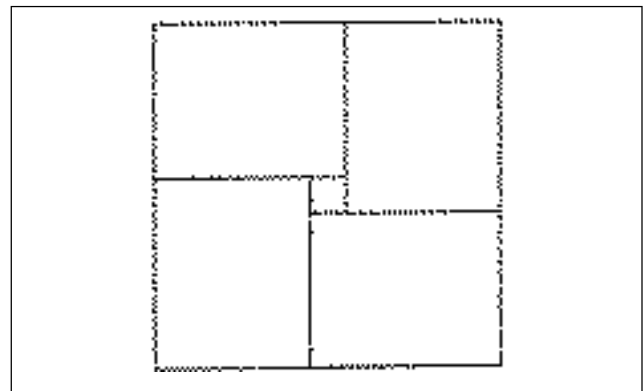


Fig. 2.

3. Groups of four pallets can be pinwheeled, as shown in Figure 2. This is the most stable packing method for a trailer, if a forklift is available for moving the pallets.

For the most efficient and safest packing of a trailer, you need to know the final number of loaded pallets.³ Since dis-

aster recovery makes this practically impossible, it may be necessary for the trailer to be repacked after all the wet paper is frozen. Keep the following in mind, while also remembering the total weight restriction that applies to your situation:

- Pallets can be placed on top of one another in the trailer. To protect the bottom layer, sheets of cardboard can be placed between the two layers.
- Watermelon crates can also be stacked.
- If the trailer will not be full, make sure the bottom layer is complete, even if the top layer is not. This helps prevent the load from shifting.
- If the base layer of pallets is incomplete, fill the floor space with empty pallets.
- Load locks and cargo bars are used to brace a partial layer of pallets. These are compression devices which can go from wall to wall, or from the ceiling to the floor of a trailer.
- Correct loading of the trailer protects the contents, as well as keeping the trailer from tipping over on curves and turns.

If your disaster site does not have a loading dock, you may still be able to have mechanical help to move pallets within the trailer. Use a ramp, or temporarily pull up at a loading dock, to load a pallet jack. This will allow hand wrap to be placed around pallets, and the pallets to be positioned correctly. Of course, a fork lift (and therefore a loading dock) is necessary if the trailer will be carrying a second layer of pallets.

LESSONS

There is confusion when any disaster occurs, and some people try to take advantage of chaos. A vendor, who misrepresented herself as being from the state government, almost got a contract for drying the Mississippi County records. If you are helping with records recovery, particularly in a jurisdiction which does not have a disaster plan, the elected officials might need extra information and advice.

Several months after the arson we heard about "salvage and overhaul." This is firefighting which tries to minimize damage during and after the fire. It can include directing water in certain ways, and covering exposed areas with tarps. Some courthouse files were damaged by a record-breaking storm after the fire; this might have been avoided by asking the fire department about salvage and overhaul.

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NOTES

1. The following points are worth considering in similar situations:

County courthouses contain records which are confidential, including closed court documents. These need to be handled/dried by people who are sensitive to any restrictions on access. When necessary, volunteer workers should sign a "confidentiality statement" which spells out legal penalties for disclosing confidential information. The county judge and other officials should understand, and agree to, how their restricted files are handled during salvage.

When there has been an arson there is a risk of repetition. If the courthouse was burned in order to destroy some records, the surviving files could be attacked during disaster recovery. It is necessary to control access to areas where records are being dried, and to provide extra security.

Mississippi County had wet bags of ballots which needed to be secured because of a federal investigation into alleged election fraud. These were placed in a freezer facility, in a location known to only a few people. In this instance the records will be dried only if they are needed by the court.

2. Partially filled boxes resulted from an effort to retain the original order of the files. One long record box could be packed into 2 1/2 cubic foot boxes.

3. For example: you have 38 pallets of material, and 24 pallets will fill the bottom layer of the trailer (with two pallets side by side filling the width). You would load two pallets on the bottom layer and use the forklift to place two pallets on top. This continues for seven rows, so that 28 pallets are stowed. Use load locks to stabilize the top layer, and the final ten pallets fill out the bottom layer.

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