

Damage Mitigation and Recovery, Magnetic Media

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Basic Requirements for Initial Disaster Response Plan

1. Clearly identify one person who has both the responsibility and the authority to act immediately.
2. Assign a backup person in case the first person is not available.
3. Identify an immediate source of funds that can be tapped to cover your initial disaster response costs.
4. Have basic supplies on hand such as rubber gloves and dust masks that will allow personnel to enter the disaster site safely - and - plastic tarps, mops and buckets that can be used to minimize exposure of your materials.
5. Identify experts who are experienced at handling the types of materials you have in your archive.
6. Post the names and phone numbers of the people who will be needed to deal with the disaster. This includes, but is not limited to: your internal disaster authority, approved recovery experts, maintenance department, plumber, roofer and insurance carrier.

Post-Disaster Damage Mitigation - Magnetic Tapes Dry Contaminants

1. Do not attempt to play back contaminated tapes.
2. Damage done by smoke and dry debris is not extremely time-sensitive.
3. Tape cases and shippers are not airtight. Exterior debris usually means interior debris.
4. Remove the tapes from the disaster area and isolate them to avoid further contamination.
5. Do not get water on the tape! Water can activate damaging chemicals in the debris that, if left dry, are relatively harmless.
6. Chemicals and techniques used to decontaminate your facility are not applicable to magnetic tape.
7. Decontamination of tapes, to make them safe to play, should be performed by an experienced professional.
8. Decontamination often requires disassembly of cassettes and reels. Tape can be damaged during this handling by untrained personnel.
9. Contaminated tapes damaged during playback attempts are often not restorable.

Post-Disaster Damage Mitigation - Magnetic Tapes Wet Contaminants

1. Do not attempt to play back wet tapes.
2. Tape cases and shippers are not watertight. Exterior moisture usually means interior moisture.
3. Damage to wet tapes is time sensitive. Delay in recovery is likely to destroy some tapes.
4. Contaminants in the water can do more immediate harm than the water itself. The most common, dangerous contaminants found in water are salt, chlorine and sewage.
5. It is sometimes possible to hold ferric oxide formulation tapes in very cold, distilled water for extended times without substantial damage. Metal Particle or Metal Evaporated tapes will oxidize and be destroyed if they remain wet too long.
6. Freeze drying wet tapes is not recommended.
7. Wet tapes should be decontaminated as soon as possible. Best results are obtained when professional restoration experts can begin working on the tapes while they are still wet.
8. Handle wet tapes very gently. Water compromises the physical structure of magnetic tapes making them much more susceptible to stretching, tearing and edge damage.
9. Prior to recovery, keep tapes in an area that is cool and well ventilated but do not freeze.
10. Do not change the tape's orientation to avoid spreading water that may be trapped in the case.
11. Contaminants must be rinsed off wet tape as soon as possible. Be gentle and use only cool distilled water. Never use tap water that may contain chlorine.
12. In-house drying is best done by exposing the tapes to an environment of cool, dry air.
13. In-house drying attempts can result in deformation of the tape and/or tape sticking to the inside of the cassette.
14. All paper inserts and wet cardboard should be removed to reduce the possibility of fungal growth.
15. Wet tapes should be wrapped in at least two layers of bubble wrap and packed in sturdy boxes to protect against shock and exposure during shipment.

Must-Do Maintenance

- All cassettes have an erase lock-out device. Activate them.
- Rewind your tapes.
- Store your materials in plastic cases or containers.
- Store cassette cases spine up to shed falling water.
- Keep tapes off the floor.

Polyester Base Magnetic Tape - Storage Standards

- AES 22 [Audio Engineering Society](#)

- ANSI IT9.23 [American National Standards Institute](#)
- ISO 18923 [International Standards Organization](#)

Care, Storage, Operation, Handling and Shipping of Magnetic Recording Tape for Television
— Recommended Practice

- RP 103 [Society of Motion Picture and Television Engineers](#)