



A U S T R A L I A

## Fire affected audio materials

### What effect does heat have on audio recordings?

#### 1. Vinyl discs

Heat may distort the disc, this alters the internal tensions in the disc, a distorted disc may be able to be flattened again but there will probably be some loss of the quality of the audio content, especially around the site of the distortion.

#### 2. Audio tapes and cassettes

The magnetic signal may be affected either over a part or all of the tape. This may be noticeable as a faint or distorted sound or an increase in background noise. DAT recordings or badly affected analogue materials may have no recoverable signal at all.

#### 3. CD's, CD-R's and DVD's

Any distortion of the disc results in a total loss of the content. CD-R's affected by heat may appear intact but the dyes used to record the data may have been affected. In this instance the disc will either work or not.

### What other problems may occur as a result of the fires?

1. Water damage, caused by fire suppression or exposure to rain. Water is very dangerous to magnetic materials, it attacks binders and can affect the magnetic record. Vinyl discs and undamaged CD's are quite robust to water and may not suffer from exposure. CD's that have been physically damaged, especially on the label side, may be affected by water. The label inks on a CD may run or be otherwise distorted by water.

2. Physical damage, caused by poor handling or disturbance during recovery. Scratching of vinyl discs and CD's may cause problems in replay. All audio recordings regardless of the media type should be handled carefully at all stages of a recovery.

3. Smoke and dirt, these may adhere to the surface of the tape, disc or CD and cause problems in playback or physical damage to the object or machine. Often dirt is only able to find it's way onto the surface as a result of poor handling. The cases that the objects are supplied in can offer a high degree of protection from these problems, even if the case appears to be damaged as a result of the fire.

# NATIONAL FILM & SOUND ARCHIVE

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## **Can damaged audio materials be recovered?**

Many audio objects may be recovered as long as care has been taken during the initial stages and not too much time has elapsed between the disaster and the start of the recovery operations. The condition of the object just prior to the disaster also has an effect.

### 1. Vinyl discs

A distorted disc may be able to be flattened again by placing between two sheets of glass and left in a warm place for a while until the disc appears completely flat. Before attempting to remove the disc it should be left to cool down. However, this may not completely recover the full quality of the original recording. Dirt and dust may be rinsed off using clean or preferably deionised water and gently patting the surface with a very soft brush or cloth.

### 2. Audio tapes and cassettes

If the cassette shell is in good condition the tape may be cleaned and replayed, if the shell is distorted or damaged the tape may be transferred to a new shell.

### 3. CD's, CD-R's and DVD's

If the disc appears not to be distorted, then dust or dirt may be gently brushed from the surfaces of the disc taking great care not to scratch the label side. The laser side may be rinsed with clean or preferably deionised water. Any brushing or drying should only be from the centre outwards not in a circular motion around the disc. Always use soft brushes or cloths.