## Statement of Turner Entertainment Co. for the Library of Congress Study of the Current State of American Television and Video Preservation

As copyright holder of over 20,000 film and video productions made specifically for television, Turner Entertainment Co. is committed to preserving these assets for future generations.

Videotape is subject to damage and physical breakdown during long term storage. In order to maximize their shelf life it is necessary to store videotape masters properly. Even if stored in optimum conditions, physical breakdown is inevitable as is the rapid change and evolution of video formats. It is therefore advisable to periodically re-transfer film originated material and copy video originated material onto more modern tape formats.

Our policy for all film originated material is to re-transfer from film to video if the existing master is more than seven years old, if the existing master is on an analog format such as 1" videotape, or if the existing master has severe video related problems rendering it unacceptable for air or distribution.

Most material transferred prior to 1988 is on analog 1" videotape. Between 1988 and 1994 all new transfers including features, made for TV movies, television series, animated series' and shorts, were transferred to D2 composite digital videotape. Since 1994 all new transfers for long form material including features and made for television movies have been transferred to D1 component digital videotape. All new transfers for short form material including live action television series' and cartoon series', have been transferred to Digital Betacam component digital videotape.

For the material that our division does not transfer from film to videotape which includes acquired and delivered masters for New Line features, TNT originals, Turner original productions and others, our delivery specifications have followed this same evolution. Currently, production companies that provide videotape masters so that our division can do the worldwide servicing must deliver on Digital Betacam component digital videotape.

Shows that originate or are post produced on videotape are, in many ways, more difficult to preserve. There is no film to fall back on if the videotape is lost or damaged. Videotape is more fragile and susceptible to more problems than film. When dealing with "video only" shows we make efforts to improve the videotape format whenever possible. Shows that originated on analog formats such as 1" or even 2" quad videotape are "bumped up" to more modern digital formats such as D2 and Digital Betacam. Video standards conversions from NTSC to PAL for distribution in Europe and Asia are now done with more advanced equipment and conversion processes resulting in material which is more readily accepted for broadcast and distribution in international territories with ever higher quality standards.

Obsolete videotape formats must also be addressed. While film has remained virtually unchanged in the more than one hundred years of its existence, videotape changes and evolves constantly. Not only do videotape formats change but the way the video and audio information is recorded onto the tape changes as well. There are videotape formats that have become obsolete. With a library as large as Turner's there do exist programs that were originally recorded on such obsolete formats. These programs have been recorded onto more modern videotape formats as previously described. The intent is to continually transfer the signal to better and better formats. Before the advent of digital formats the program being preserved could be degraded by the very act of copying to another format due to generational loss during duplication. Component digital formats in use today are not as affected by multi-generational copying.

Videotape master formats are not the only issue when it comes to preserving television programs. Storage of those masters and the film elements that make them is also important. Film elements, if stored improperly are subject to fading, warping, physical breakdown and decomposition of the film itself known as vinegar syndrome. Videotape masters and protection masters are subject to changes in friction properties, abrasivity, and binder-base adhesion caused by extreme shifts in temperature and humidity, airborne pollutants and ultaviolet radiation. The signal recorded on videotape is also in danger of being damaged or lost if exposed to electro-magnetic fields which can be caused by electric motors or transformers. Due to these potential problems, storage conditions are of great importance.

Original negatives, color and black & white protection elements, and duplicate negatives are stored at separate facilities with controlled temperature, humidity, and environmental control. Videotape transfer masters and acquired masters are also separated from protection masters and stored under controlled conditions.

Preservation of programs also includes safeguarding against the loss of elements. The physical separation of elements described earlier prevents loss due to catastrophic events such as fires and earthquakes. Location and shipment of all film and tape elements is controlled via a computerized inventory that tracks all original and protection elements worldwide. In 1995 we designed and incorporated a state of the art warehouse management system that tracks elements located at, and shipped to and from, our Los Angeles distribution services facility via bar-code.

We feel that our efforts to keep up with current videotape technology both when mastering from film to tape and when dealing with "tape only" programs, as well as proper storage conditions of all our elements is vital for proper preservation of television product. Not only are these programs valuable corporate assets and a source of entertainment for millions of viewers, they are historical records that offer irreplaceable insight to our culture and society. The fact that this product continues to find new life on an ever expanding array of outlets including new networks, direct broadcast satellite systems, and home video re-issues among others, underscores the need for a conscious effort to preserve film and videotape.

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