<div align="center">**PROGRAM TECHNICAL SPECIFICATIONS**</div>

VIDEO SPECIFICATIONS:

Video program material shall be produced using industry standard and accepted norms of good practice and workmanship.

    a.   Master and source must meet industry standard or industry accepted standards for video format interchange.

    b.   Vertical blanking should fall within SMPTE specifications. (19 lines, +/- 2 lines)

    c.   Horizontal blanking should fall within SMPTE specifications. (10.9 +/- 0.2 microseconds, with front and back porch 1.5 and 4.7 respectively)

    d.   Composite video white levels should not exceed 100 IRE units and, and program black levels should not extend below 7.5 IRE units. Neither the program luminance whites, nor blacks should be clipped excessively.

    e.   Composite chroma levels should not exceed 110 IRE and may be clipped to prevent transmission over modulation. Encoded analog from any component format may not exceed the above specification.

    f.   Horizontal and vertical synchronizing pulses, where applicable, must be recorded in the program tape at a level of 40 IRE.

Control track (CTL) pulses must be continuous and contain color frame pulses. The control track must be properly phased to the recorded video vertical interval.

Each program shall be precoded with a minimum of 2 seconds of black before start of program. The tape must have a minimum of 5 seconds of black following the last program picture and audio. The program material must be representative of the audio and video reference signals.

- One (1) frame of pulled blacks separating each act of each episode.

    Channel 1: Full Comp. Mix -Stereo Left
    Channel 2: Full Comp. Mix -Stereo Right
    Channel 3: M&E - Stereo Left
    Channel 4: M&E - Stereo Right

Digital NTSC Version

- One (1) frame of pulled blacks separating each act of each episode.

Channel 1: Dialogue - Stereo Left
Channel 2: Dialogue - Stereo Right
Channel 3: M&E - Stereo Left
Channel 4: M&E - Stereo Right

AUDIO SPECIFICATIONS:

Split Track Audio Source must also be provided:

♦ NTSC Audio file

Audio program material shall be produced using industry standard and accepted norms of good practice and workmanship.

1. The audio portion of the master and source audio must be produced so that no noise, static, dropouts, or extraneous distortion is recorded in the audio.
2. Audio channels – Stereo audio must be fully mono compatible. The audio channels must be in proper phase.
3. Any voice-over translation of on-camera foreign language must be on full-mix track ONLY.
    a. Full mix and split audio tracks should be coherent to prevent difficulty editing between these tracks as necessary.
    b. **Timecode** – SMPTE Dropframe timecode is mandatory. Program start timecode must read 01:00:00:00
    c. All time code references (i.e., vertical interval time code, (VITC), longitudinal time code, (LTC)) must match exactly.
    d. Program audio must reflect reference tone level. Audio levels must be consistent throughout the program.
    e. **Headroom**: Transmission limiting clip at +6 dB. Transient audio peaks must not exceed +10 dB above reference tone. When mastering to a digital format and/or using and Absolute Scale or Peak meter, where "0" is at the top of the scale and reference tone is at –20 dB, audio should peak at no more than –10 dB. When using an analog meter, though the ballistics of analog VU meters vary greatly, the average program audio level of 2 to –6 dB will roughly equal 10 dB of headroom and not exceed specifications for peak limits. Head switching should be in the vertical interval.
    f. Audio Compression: Program audio should have good dynamic range, within the parameters listed above, but not be overly dynamic. While some compression may be needed to control the dynamic range of the program audio, excessive audio compression of the final mix should be avoided as this reduces the final perception of the audio quality by the listener.

Signal to noise ratio should be less than or equal to 48 dB unweighted.

Include cut sheet/Quality Control Form with every tape.

Definitions:
Effects / Prod. Sound: All added effects; production audio with natural sound, which may include background dialogue; b: roll. All clip sound/dialogue.
Narration: Host voice over; English translations.
Dialogue: All on camera interviews including host on camera, dialogue to camera. Any foreign language translations.