

## **EXHIBIT I**

**ENGINEERING STATEMENT  
IN SUPPORT OF AN APPLICATION FOR POWER INCREASE  
OF DTV STATION KTUU-DT  
KTUU-DT, ANCHORAGE, ALASKA  
CHANNEL 10 50 kW MAX., 240 METERS HAAT  
October 23, 2008**

This engineering statement is prepared by Northern Lights Media, Inc., licensee of station KTUU-DT, Anchorage, Alaska (Facility ID No. 10173), in support of an application to modify its digital television license (BLCDDT-20050915ACP) to allow for an increase in effective radiated power after the digital television transition on February 17, 2009. No change in pre-transition operations is being requested.

KTUU-DT now operates on digital channel 10 with an effective radiated power of 21 kW at 240 meters antenna height above average terrain (HAAT) using a directional TV antenna (#677943) from the Frank A. Mengel tower site ("FAM Site"). The geographic coordinates of that site are as follows: N 61° 25' 22", W 149° 52' 20" (NAD 27). The FAM Site is approximately 22.5 km (14 miles) north of the community of Anchorage. The proposed antenna is the one currently used for KTUU-DT. The directional pattern of this antenna was fully described in Exhibit E to the application to modify KTUU-DT's construction permit, FCC File No. BMPCDDT-20041025ACS. No change in that pattern will occur.

### DTV Channel Allocation

There are no co-channel post-transition DTV stations or class A digital stations within 475 km of the KTUU-DT tower site. There is one adjacent channel station (KUAC-DT, Facility number 69315) located 402.9 km north in Fairbanks, Alaska. No interference conflicts are suggested by this data.

### Principal Community Coverage

The attached map (Exhibit A) shows the computed 36 dBu contour for the proposed KTUU-DT operation on Channel 10 with 50 kW ERP at 240m HAAT using the specified antenna. The proposed facility will provide coverage over the principal community of Anchorage, Alaska as required by Section 73.625 of the Commission's rules.

### Environmental Statement

The proposed KTUU-DT operation will be from the existing FAM Site. The environmental concerns listed in Section 1.1307(a) of the Commission's rules are not affected by this operation.

The proposed DTV station will be collocated on the same tower (ASRN 1007418) with the facilities of KAKM-DT, KIMO-DT, KSKA-FM, and KNBA-FM. Calculations were performed to determine ground level RFR at the site caused by these facilities. The study assumes that the

operation of NTSC TV stations KTUU-TV, KIMO-TV, and KAKM-TV currently located on the same tower will cease in February 2009.

The station information and RFR calculations are:

| <b>FAM Site</b> |           |       |          |                      |       |               |
|-----------------|-----------|-------|----------|----------------------|-------|---------------|
|                 |           |       |          |                      |       |               |
| Facility        | Freq(mHz) | CH    | ERP (kW) | (D,A,F)              | AGL   | MPE(mW/cm2)   |
| KAKM-DT         | 183       | 8     | 50       | D                    | 236   | 0.00119       |
| KTUU-DT         | 195       | 10    | 50       | D                    | 236   | 0.00119       |
| KIMO-DT         | 207       | 12    | 41       | D                    | 236   | 0.00098       |
| KNBA-FM         | 90.3      | 212C1 | 200      | F                    | 184.7 | 0.00777       |
| KSKA-FM         | 91.1      | 216C1 | 200      | F                    | 184.7 | 0.00777       |
|                 |           |       |          | <b>TOTAL MPE&gt;</b> |       | <b>0.0189</b> |

The antenna heights listed above for KSKA-FM/KNBA-FM differ slightly from the heights shown in station authorizations; however, the listed heights are correct.

A review of the elevation patterns for these antennas indicates that, in all cases, an assumption of a maximum relative field in the range of depression angles 50° to 90° can be conservatively stated as 20%.

The sum of the calculated ground level RFR exposure in Uncontrolled Areas is less than 0.020 mW/cm<sup>2</sup>. This is 8% of the maximum for public exposure. All calculations were conducted using the procedures outlined in FCC Bulletin OET-65.

Public exposure to excessive RFR is not possible as the tower base is encompassed by a perimeter security fence which effectively limits access. Appropriate signage warns of the potentially high RFR within and above the fenced area.

There is, however, a potential for worker exposure to excessive RFR levels while performing maintenance on the tower. A tower access policy has been adopted which defines the areas on the tower in which the RFR is expected to be in excess of the maximum allowable RFR limit. Until such time as the RFR can be mapped by actual measurements, the following table should be used for worker access to the tower:

|                                       |
|---------------------------------------|
| FM Station Power Maximum Height       |
| (Both Stations) on Tower AGL (meters) |
| 100% 155                              |
| 50% 165                               |
| 10% 175                               |

For worker location at heights on the tower greater than 175 meters AGL, FM station operation should be terminated. With the FM transmitters de-energized, workers may approach the top-mounted antennas up to 185 meters AGL. For workers above 195 meters all operations from the tower must cease.

All tenants on the tower have agreed to the above policy to reduce power or cease transmission as necessary to provide a compliant environment for workers on the tower. Workers will be encouraged to wear personal RFR monitors.

Based on the above calculations and adherence to the recommendations regarding worker exposure to RFR, the subject facilities (modified as proposed) are compliant with the FCC requirements regarding human exposure to Non-Ionizing Radio Frequency Radiation.



This topographic map of the Anchorage, Alaska area, illustrates the 36dBu contour for the KTUU-DT station at a power level of 50kW and a height above average terrain (HAAT) of 240M. The contour is depicted as a solid black line, originating near the city of Anchorage and extending northwest towards the Matanuska-Susitna Valley. The map features various geographical elements, including Denali National Park and Preserve to the northwest, the Matanuska-Susitna Valley, and the Kenai Peninsula to the south. Major water bodies such as Cook Inlet, Turnagain Arm, and various lakes (e.g., Chugach Lake, Kenai Lake) are shown. Numerous towns and cities are labeled, including Anchorage, Knik, Chugiach, and Sterling. The map also identifies several glaciers and mountain peaks. A scale bar at the bottom indicates distances from 0 to 100 miles.