

# Radiofrequency Electromagnetic Field Exposure Report

KARQ Redding, CA

FIN: 77093

91.3 MHz

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## Introduction

The permittee for the KARQ construction permit (file number BPED-20151221CJD) is Educational Media Foundation. Per special operating condition #3, upon completion of construction and during the equipment test period the permittee shall make proper radiofrequency electromagnetic (RF) field strength measurements throughout the transmitter site area to determine if there are any areas that exceed the FCC guidelines for human exposure to RF fields. Stephen Guye, an engineer employed by Educational Media Foundation, completed the KARQ RF Exposure Study using a Narda NBM-550 instrument. Measurements were taken while slowly moving the probe between approximately 2 and 8 feet above ground, as well as side-to-side while walking to and from each measurement point. If an area had higher than average readings, further investigation was conducted to determine the extent of the area.

## Equipment

- Narda NRM-550 Serial # B-0755
- Date of Calibration: 02/07/2017
- Antenna Type: EA5091 Serial # 01057

## Summary

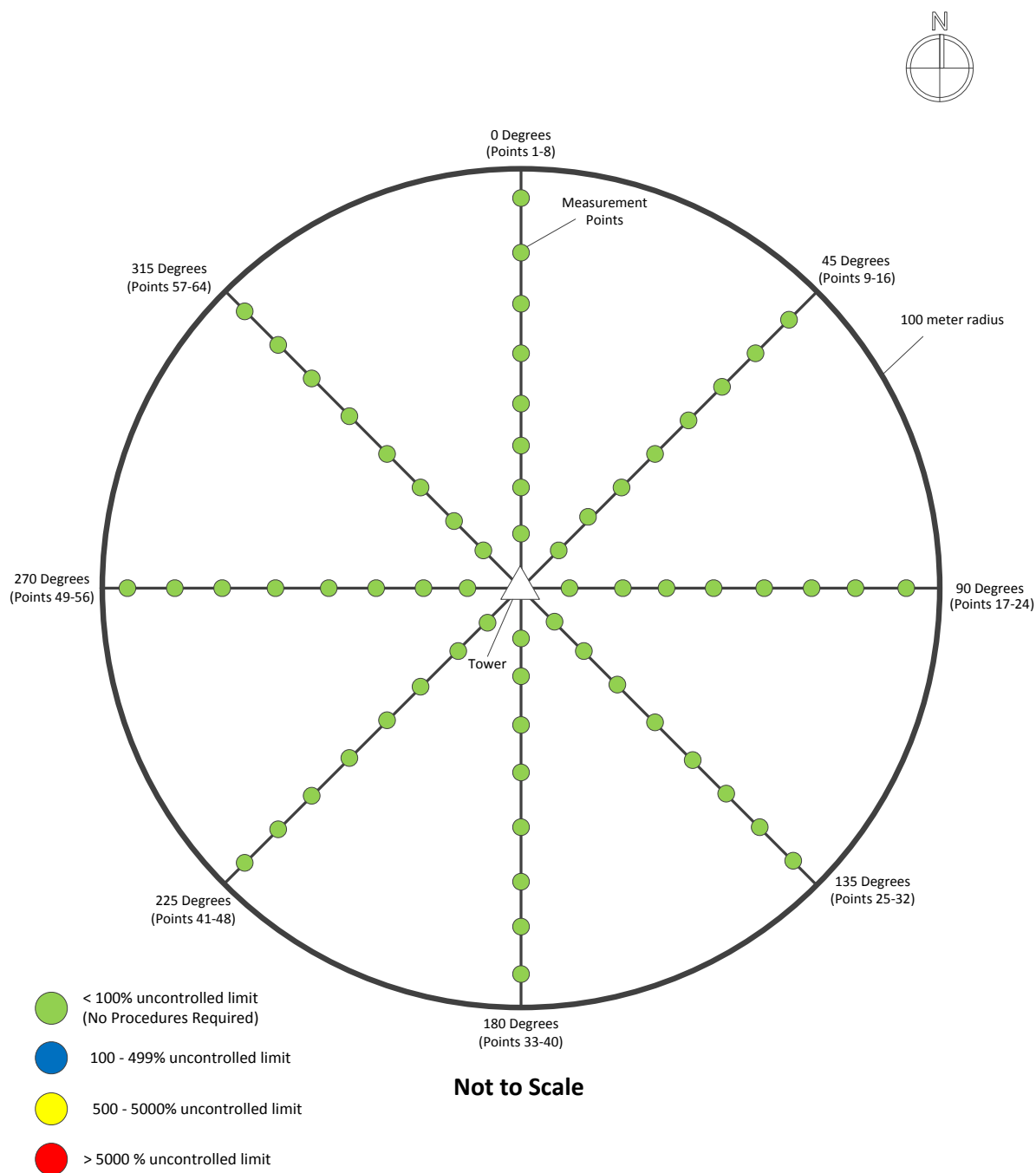
KARQ was confirmed to be operating at 100% ERP at the time of measurements. Measurement points were recorded along eight 100 meter walking radials, as well as throughout the accessible areas of the facility.

All areas throughout the facility were measured to be below 100% of the uncontrolled limits of OET-65.

Therefore, KARQ fully complies with the FCC's maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments.

## Drawings

### KARQ RF Exposure Measurement Area



## Measurement Points

### General Public and Occupational RFR Measurements

| Point | Total Occupational<br>RFR % | Total General Public<br>RFR % |
|-------|-----------------------------|-------------------------------|
| 1     | 5.87                        | 29.33                         |
| 2     | 6.00                        | 30.02                         |
| 3     | 7.92                        | 39.58                         |
| 4     | 6.70                        | 33.51                         |
| 5     | 3.37                        | 16.84                         |
| 6     | 3.24                        | 16.20                         |
| 7     | 2.89                        | 14.43                         |
| 8     | 4.13                        | 20.65                         |
| 9     | 5.01                        | 25.06                         |
| 10    | 3.37                        | 16.87                         |
| 11    | 5.52                        | 27.59                         |
| 12    | 7.27                        | 36.37                         |
| 13    | 7.75                        | 38.75                         |
| 14    | 6.77                        | 33.85                         |
| 15    | 5.64                        | 28.20                         |
| 16    | 5.79                        | 28.95                         |
| 17    | 7.39                        | 36.97                         |
| 18    | 6.69                        | 33.47                         |
| 19    | 5.83                        | 29.14                         |
| 20    | 4.44                        | 22.22                         |
| 21    | 3.89                        | 19.47                         |
| 22    | 3.18                        | 15.91                         |
| 23    | 2.81                        | 14.07                         |
| 24    | 2.79                        | 13.93                         |
| 25    | 3.57                        | 17.83                         |
| 26    | 3.80                        | 18.98                         |
| 27    | 5.14                        | 25.69                         |
| 28    | 5.83                        | 29.14                         |
| 29    | 1.50                        | 7.51                          |
| 30    | 1.46                        | 7.32                          |
| 31    | 3.66                        | 18.30                         |
| 32    | 5.64                        | 28.22                         |

|           |      |       |
|-----------|------|-------|
| <b>33</b> | 7.17 | 35.87 |
| <b>34</b> | 8.17 | 40.87 |
| <b>35</b> | 5.07 | 25.33 |
| <b>36</b> | 3.77 | 18.87 |
| <b>37</b> | 2.35 | 11.77 |
| <b>38</b> | 1.73 | 8.66  |
| <b>39</b> | 1.23 | 6.15  |
| <b>40</b> | 1.13 | 5.63  |
| <b>41</b> | 1.25 | 6.26  |
| <b>42</b> | 1.09 | 5.44  |
| <b>43</b> | 1.27 | 6.34  |
| <b>44</b> | 0.84 | 4.22  |
| <b>45</b> | 1.18 | 5.88  |
| <b>46</b> | 1.75 | 8.74  |
| <b>47</b> | 2.05 | 10.27 |
| <b>48</b> | 1.56 | 7.81  |
| <b>49</b> | 1.98 | 9.89  |
| <b>50</b> | 1.17 | 5.85  |
| <b>51</b> | 1.72 | 8.60  |
| <b>52</b> | 3.38 | 16.89 |
| <b>53</b> | 3.53 | 17.63 |
| <b>54</b> | 3.94 | 19.72 |
| <b>55</b> | 4.09 | 20.46 |
| <b>56</b> | 4.58 | 22.91 |
| <b>57</b> | 4.80 | 23.98 |
| <b>58</b> | 3.71 | 18.57 |
| <b>59</b> | 3.57 | 17.83 |
| <b>60</b> | 3.85 | 19.23 |
| <b>61</b> | 2.66 | 13.30 |
| <b>62</b> | 2.43 | 12.15 |
| <b>63</b> | 2.14 | 10.68 |
| <b>64</b> | 2.28 | 11.39 |