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ภาคผนวก ก

ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ ฉบับที่ 15 เรื่อง มาตรฐานระดับเสียงโดยทั่วไป

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ประกาศคณะกรรมการสิ่งแวดล้อมแห่งชาติ

ฉบับที่ ๑๕ (พ.ศ. ๒๕๔๐)

เรื่อง กำหนดมาตรฐานระดับเสียงโดยทั่วไป

อาศัยอำนาจตามความในมาตรา ๑๒ (๕) แห่งพระราชบัญญัติส่งเสริมและรักษาคุณภาพสิ่งแวดล้อมแห่งชาติ พ.ศ. ๒๕๑๕ คณะกรรมการสิ่งแวดล้อมแห่งชาติกำหนดมาตรฐานระดับเสียงโดยทั่วไปไว้ดังต่อไปนี้

ข้อ ๑ ในประกาศนี้

“ระดับเสียงโดยทั่วไป” หมายความว่า ระดับเสียงที่เกิดขึ้นในสิ่งแวดล้อม

“ค่าระดับเสียงสูงสุด” หมายความว่า ค่าระดับเสียงสูงสุดที่เกิดขึ้นในขณะใดขณะหนึ่งระหว่างการตรวจวัดระดับเสียง โดยมีหน่วยเป็นเดซิเบลเอ หรือ dB (A)

“ค่าระดับเสียงเฉลี่ย ๒๔ ชั่วโมง” หมายความว่า ค่าระดับเสียงคงที่ที่มีพลังงานเทียบเท่าระดับเสียงที่เกิดขึ้นจริง ซึ่งมีระดับเสียงเปลี่ยนแปลงตามเวลาในช่วง ๒๔ ชั่วโมง (๒๔ hours A-weighted Equivalent Continuous Sound Level) ซึ่งเรียกโดยย่อว่า Leq ๒๔ hr โดยมีหน่วยเป็นเดซิเบลเอ หรือ dB (A)

“มาตรฐานระดับเสียง” หมายความว่า เครื่องวัดระดับเสียงตามมาตรฐาน IEC ๖๕๑ หรือ IEC ๘๐๔ ของคณะกรรมการการระหว่างประเทศว่าด้วยเทคนิคไฟฟ้า (International Electrotechnical Commission, IEC)

ข้อ ๒ ให้กำหนดมาตรฐานระดับเสียงโดยทั่วไป ไว้ดังต่อไปนี้

- (๑) ค่าระดับเสียงสูงสุด ไม่เกิน ๑๑๕ เดซิเบลเอ
- (๒) ค่าระดับเสียงเฉลี่ย ๒๔ ชั่วโมง ไม่เกิน ๗๐ เดซิเบลเอ

ข้อ ๓ การตรวจวัดระดับเสียงโดยทั่วไป ให้ดำเนินการดังต่อไปนี้

(๑) การตรวจวัดค่าระดับเสียงสูงสุด ให้ใช้มาตรระดับเสียงตรวจวัดระดับเสียงในบริเวณที่มีคนอยู่หรืออาศัยอยู่

(๒) การตรวจวัดค่าระดับเสียงเฉลี่ย ๒๔ ชั่วโมง ให้ใช้มาตรระดับเสียงตรวจวัดระดับเสียงอย่างต่อเนื่องตลอดเวลา ๒๔ ชั่วโมงใดๆ

(๓) การตั้งไมโครโฟนของมาตรระดับเสียงที่บริเวณภายนอกอาคารให้ตั้งสูงจากพื้นไม่น้อยกว่า ๑.๒๐ เมตร โดยในรัศมี ๓.๕๐ เมตร ตามแนวราบรอบไมโครโฟน ต้องไม่มีกำแพงหรือสิ่งอื่นใดที่มีคุณสมบัติในการสะท้อนเสียงกีดขวางอยู่

(๔) การตั้งไมโครโฟนของมาตรระดับเสียงที่บริเวณภายในอาคารให้ตั้งสูงจากพื้นไม่น้อยกว่า ๑.๒๐ เมตร โดยในรัศมี ๑.๐๐ เมตร ตามแนวราบรอบไมโครโฟน ต้องไม่มีกำแพงหรือสิ่งอื่นใดที่มีคุณสมบัติในการสะท้อนเสียงกีดขวางอยู่และต้องห่างจากช่องหน้าต่างหรือช่องทางที่เปิดออกนอกอาคารอย่างน้อย ๑.๕๐ เมตร

ข้อ ๔ การคำนวณค่าระดับเสียงจะต้องเป็นไปตามวิธีการที่องค์การระหว่างประเทศว่าด้วยมาตรฐาน (International Organization for Standardization, ISO) กำหนด ซึ่งกรมควบคุมมลพิษจะประกาศในราชกิจจานุเบกษา

ประกาศ ณ วันที่ ๑๒ มีนาคม พ.ศ. ๒๕๔๐

พลเอก ชวลิต ยงใจยุทธ

นายกรัฐมนตรี

ประธานคณะกรรมการสิ่งแวดล้อมแห่งชาติ

(ประกาศในราชกิจจานุเบกษา เล่ม ๑๑๔ ตอนที่ ๒๗ ง วันที่ ๓ เมษายน ๒๕๔๐)



ภาคผนวก ข

ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิด

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ตารางที่ ข.1 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 1

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA1	87.2	84.1	90.5	84.6	85.6	87.9	86.8	84.0	83.4	81.6	83.3	83.8	84.4	83.1	82.7	81.4	80.5	78.3	76.9	76.3	72.8	70.1	67.8	65.2	62.2	60.6	59.2	55.5	53.1	50.0	46.4	43.1
TA2	80.3	66.7	68.5	72.2	74.7	73.4	74.4	75.0	73.3	74.1	76.9	75.8	72.8	72.7	72.4	74.0	73.8	71.4	72.8	71.3	65.6	63.8	62.9	61.3	59.5	56.8	55.1	53.7	52.8	50.3	46.8	41.1
TA3	84.8	76.0	79.4	81.3	80.2	83.7	82.8	81.3	79.6	80.1	81.8	81.7	81.4	81.1	79.5	78.4	77.5	75.3	74.7	74.5	71.4	68.5	66.6	63.8	61.5	59.4	57.7	55.0	52.8	50.7	45.9	43.0
SA	81.8	70.4	70.0	69.7	71.4	71.1	71.2	73.8	74.7	73.0	73.2	72.4	72.9	72.7	73.4	73.5	74.8	74.0	74.3	74.6	68.3	65.2	65.7	62.3	59.8	57.3	54.5	52.9	52.6	49.6	44.9	40.0
MA	90.2	75.2	78.5	75.0	76.2	76.4	73.6	75.7	77.4	76.2	78.9	81.2	84.1	83.8	82.4	79.8	86.5	81.9	80.5	82.2	76.9	74.3	71.4	68.1	65.8	63.8	59.7	57.0	54.1	50.9	47.8	44.4
TB	85.6	62.4	86.9	67.1	70.2	79.0	73.1	74.2	71.1	71.0	71.2	73.2	81.6	75.7	74.3	86.3	72.2	72.7	78.7	70.0	67.5	62.6	59.7	56.6	55.5	57.0	58.0	48.2	48.8	49.6	40.0	41.2
SB	86.9	78.7	82.0	83.8	83.1	81.7	83.4	80.7	77.6	78.0	76.8	79.8	80.5	78.1	80.1	78.8	75.3	81.2	80.3	72.9	75.9	74.5	68.8	67.2	66.3	67.0	65.1	61.6	58.2	53.6	48.6	44.1
MB	78.0	66.1	70.1	76.1	79.0	77.7	77.1	78.2	76.9	73.5	72.1	72.4	75.6	72.6	70.6	73.1	71.1	70.0	67.8	66.2	64.2	62.4	60.8	59.3	55.8	52.3	50.9	46.7	43.8	38.8	35.2	35.2
TC	84.4	82.7	82.6	83.1	79.7	78.2	81.5	81.9	78.1	77.0	79.1	78.0	79.0	77.9	77.3	76.6	76.0	77.1	76.0	75.8	71.3	69.5	66.7	64.8	63.8	62.3	60.6	57.0	54.0	51.0	50.4	44.9
SC	82.0	64.0	74.0	64.6	68.2	75.4	68.6	74.4	74.1	75.7	78.3	75.9	74.3	75.1	74.5	75.4	75.6	74.8	74.8	70.0	68.7	66.9	64.3	63.2	61.1	58.6	55.4	52.3	50.5	47.4	41.7	38.9
MC	96.9	73.5	78.1	72.6	74.0	79.6	74.4	77.1	76.1	77.0	76.5	78.7	80.3	78.0	82.0	83.5	78.5	92.1	95.0	76.4	73.5	73.5	66.7	65.0	63.5	63.0	62.8	56.0	55.0	53.5	47.1	44.3
TN	93.2	75.2	81.1	86.7	83.1	84.4	87.7	82.1	84.5	82.4	84.7	85.8	88.0	86.0	84.8	85.6	86.6	87.9	81.9	84.1	82.0	76.5	74.8	71.7	69.6	67.6	66.5	64.0	59.9	55.0	49.2	44.4
SN	80.3	67.4	73.2	77.0	73.6	75.9	76.1	74.4	71.7	70.5	73.0	75.3	73.5	72.8	73.9	73.5	74.0	71.6	72.1	71.6	66.2	63.1	62.2	59.6	61.9	63.9	53.8	52.0	51.1	48.4	43.9	38.4
MN	90.3	67.5	75.4	69.7	71.3	77.3	80.0	78.4	81.1	78.0	83.8	82.0	86.1	82.3	80.8	79.8	85.1	82.1	78.9	84.5	78.5	69.9	67.4	65.0	62.3	62.1	59.2	56.7	55.7	53.7	51.8	48.7

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	84.3	72.9	72.8	71.6	71.6	72.7	73.1	79.6	83.1	82.2	80.0	77.9	76.7	78.7	76.3	77.0	75.5	74.0	78.1	71.2	71.9	71.8	69.6	67.8	65.7	62.5	59.2	55.8	53.2	50.2	46.9	45.2
CA2	84.3	72.9	72.8	71.6	71.6	72.7	73.1	79.6	83.1	82.2	80.0	77.9	76.7	78.7	76.3	77.0	75.5	74.0	78.1	71.2	71.9	71.8	69.6	67.8	65.7	62.5	59.2	55.8	53.2	50.2	46.9	45.2
CA3	84.3	72.9	72.8	71.6	71.6	72.7	73.1	79.6	83.1	82.2	80.0	77.9	76.7	78.7	76.3	77.0	75.5	74.0	78.1	71.2	71.9	71.8	69.6	67.8	65.7	62.5	59.2	55.8	53.2	50.2	46.9	45.2
CA4	84.3	72.9	72.8	71.6	71.6	72.7	73.1	79.6	83.1	82.2	80.0	77.9	76.7	78.7	76.3	77.0	75.5	74.0	78.1	71.2	71.9	71.8	69.6	67.8	65.7	62.5	59.2	55.8	53.2	50.2	46.9	45.2
CB1	78.1	61.1	74.8	57.1	62.5	71.5	65.3	71.8	70.1	70.5	72.1	75.3	73.2	73.5	69.6	67.5	72.4	69.8	69.4	67.6	66.6	64.2	61.5	58.4	54.7	50.4	47.9	45.3	42.5	38.5	34.6	31.7
CB2	78.1	61.1	74.8	57.1	62.5	71.5	65.3	71.8	70.1	70.5	72.1	75.3	73.2	73.5	69.6	67.5	72.4	69.8	69.4	67.6	66.6	64.2	61.5	58.4	54.7	50.4	47.9	45.3	42.5	38.5	34.6	31.7
CC1	83.8	55.3	66.0	64.8	67.2	73.6	67.5	69.3	71.1	72.4	69.7	73.6	74.1	73.2	78.1	76.3	79.2	76.6	76.7	72.2	68.0	68.0	64.2	62.3	61.1	61.0	57.4	57.2	54.5	50.1	43.2	34.7
CC2	83.8	55.3	66.0	64.8	67.2	73.6	67.5	69.3	71.1	72.4	69.7	73.6	74.1	73.2	78.1	76.3	79.2	76.6	76.7	72.2	68.0	68.0	64.2	62.3	61.1	61.0	57.4	57.2	54.5	50.1	43.2	34.7
CN1	79.0	55.8	59.1	62.7	65.0	67.1	70.0	77.9	78.0	78.3	75.8	78.2	79.5	75.2	70.5	70.2	71.9	67.5	68.1	69.5	66.2	64.1	58.7	57.6	53.0	49.2	48.0	46.4	44.9	42.2	39.7	34.8
CN2	79.0	55.8	59.1	62.7	65.0	67.1	70.0	77.9	78.0	78.3	75.8	78.2	79.5	75.2	70.5	70.2	71.9	67.5	68.1	69.5	66.2	64.1	58.7	57.6	53.0	49.2	48.0	46.4	44.9	42.2	39.7	34.8

ตารางที่ ข.2 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 2

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	84.1	58.2	78.9	59.5	59.6	75.8	68.5	79.0	77.2	78.4	75.1	72.1	77.0	77.6	77.4	77.1	77.4	74.4	75.1	77.0	71.1	70.3	67.1	64.8	64.5	57.5	56.1	57.6	57.3	52.0	47.7	46.1
TA3	87.3	53.2	67.9	70.9	81.9	86.0	79.0	66.6	64.7	67.1	69.2	73.1	71.9	71.5	70.9	70.4	72.0	69.5	78.4	75.0	70.1	66.2	62.9	60.9	57.9	55.3	52.7	48.7	46.1	40.9	37.1	33.2
SA	79.4	62.1	68.9	70.9	71.6	75.1	77.2	78.4	79.5	73.2	73.6	76.8	76.6	71.5	73.6	72.8	72.5	69.8	70.2	70.5	66.1	63.8	61.4	58.7	55.5	52.7	49.9	48.5	46.5	43.3	39.4	34.5
MA	83.4	59.2	70.6	65.3	68.8	71.1	73.2	72.0	75.5	78.1	82.5	77.9	74.9	70.8	73.6	73.1	70.6	72.8	72.8	78.8	75.5	66.7	64.2	61.0	57.6	54.5	50.4	47.5	44.1	39.3	35.4	32.0
TB	87.3	78.0	84.2	82.7	80.0	67.9	64.1	63.5	64.5	68.9	67.5	69.4	72.1	75.2	73.2	77.3	77.2	74.2	77.4	77.2	73.0	71.3	65.2	63.0	62.5	60.5	57.4	57.3	57.9	52.7	46.8	40.0
SB	82.6	66.4	67.3	86.3	63.0	76.4	70.6	74.2	73.8	71.9	67.6	69.5	73.3	79.5	80.3	71.4	76.2	73.8	72.1	72.4	70.2	67.9	65.7	63.8	63.5	61.1	54.8	54.6	49.2	47.3	44.5	37.4
MB	76.7	60.2	62.0	60.3	65.8	64.8	67.7	72.1	70.0	67.8	69.0	66.3	72.6	65.2	68.0	65.4	67.5	66.4	68.0	67.5	66.6	64.9	60.7	58.1	56.4	54.2	50.6	52.6	51.0	49.1	55.7	42.6
TC	85.5	61.9	75.0	62.1	63.7	66.5	69.4	72.3	79.0	81.0	78.0	71.1	74.9	73.8	76.5	75.0	79.3	69.2	72.5	69.4	72.0	70.3	66.9	64.6	64.0	60.4	55.5	55.7	53.8	49.3	44.5	38.4
SC	84.5	61.2	76.5	62.6	59.5	63.7	70.3	73.7	70.5	72.1	70.5	72.4	75.1	75.4	77.7	78.9	74.2	76.6	78.2	74.7	71.2	70.0	66.8	64.6	64.0	58.8	55.2	55.1	53.6	49.0	44.2	37.6
MC	78.2	57.6	57.6	65.1	63.4	68.5	68.0	76.7	74.0	75.1	75.6	74.2	74.6	77.0	69.9	68.8	71.5	67.8	67.0	70.2	67.4	64.6	60.1	59.4	54.0	50.3	49.0	46.6	45.1	42.7	40.1	35.3
TN	87.8	54.2	65.8	59.2	63.4	70.0	67.8	72.9	81.5	86.2	70.2	74.0	70.4	72.2	70.6	69.7	72.6	69.8	78.1	76.7	70.3	66.1	62.5	60.3	57.5	55.2	53.1	48.8	46.3	41.5	38.3	33.9
SN	82.8	61.1	62.2	73.2	70.7	72.9	81.2	79.8	80.9	76.8	76.6	73.4	70.8	71.3	69.6	69.5	70.7	68.9	70.3	69.4	64.3	63.8	60.9	58.7	55.5	51.0	48.5	46.5	44.2	39.4	35.8	32.4
MN	80.8	63.5	67.8	72.6	72.3	80.0	79.0	78.0	79.9	78.8	77.6	77.5	74.7	71.4	74.6	77.0	71.0	73.0	74.2	68.3	66.0	63.2	59.5	58.0	56.1	55.2	51.9	45.7	45.0	39.2	32.2	26.4

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	82.6	61.5	86.4	60.5	65.9	75.1	72.6	73.3	70.9	71.6	70.4	70.5	73.6	78.5	80.0	71.5	76.0	73.8	73.0	72.6	70.1	68.2	65.8	64.8	62.9	62.5	54.7	54.9	49.5	47.4	43.9	37.4
CA2	82.6	61.5	86.4	60.5	65.9	75.1	72.6	73.3	70.9	71.6	70.4	70.5	73.6	78.5	80.0	71.5	76.0	73.8	73.0	72.6	70.1	68.2	65.8	64.8	62.9	62.5	54.7	54.9	49.5	47.4	43.9	37.4
CA3	82.6	61.5	86.4	60.5	65.9	75.1	72.6	73.3	70.9	71.6	70.4	70.5	73.6	78.5	80.0	71.5	76.0	73.8	73.0	72.6	70.1	68.2	65.8	64.8	62.9	62.5	54.7	54.9	49.5	47.4	43.9	37.4
CA4	82.6	61.5	86.4	60.5	65.9	75.1	72.6	73.3	70.9	71.6	70.4	70.5	73.6	78.5	80.0	71.5	76.0	73.8	73.0	72.6	70.1	68.2	65.8	64.8	62.9	62.5	54.7	54.9	49.5	47.4	43.9	37.4
CB1	78.6	58.2	72.6	60.0	69.2	67.4	64.4	71.0	75.9	75.8	72.6	76.6	73.9	75.9	71.1	68.7	72.8	69.9	69.3	67.2	66.6	63.9	61.5	57.9	54.1	50.4	47.7	44.8	42.1	38.5	35.0	31.8
CB2	78.6	58.2	72.6	60.0	69.2	67.4	64.4	71.0	75.9	75.8	72.6	76.6	73.9	75.9	71.1	68.7	72.8	69.9	69.3	67.2	66.6	63.9	61.5	57.9	54.1	50.4	47.7	44.8	42.1	38.5	35.0	31.8
CC1	81	63.7	61.7	56.4	60.2	69.5	67.1	73.0	70.6	70.3	67.9	70.8	70.0	71.1	68.7	73.1	73.5	74.3	75.6	71.5	66.0	67.9	62.4	58.5	58.4	57.4	55.3	56.3	57.1	53.7	47.3	39.0
CC2	81	63.7	61.7	56.4	60.2	69.5	67.1	73.0	70.6	70.3	67.9	70.8	70.0	71.1	68.7	73.1	73.5	74.3	75.6	71.5	66.0	67.9	62.4	58.5	58.4	57.4	55.3	56.3	57.1	53.7	47.3	39.0
CN1	82.5	68.5	82.1	67.8	68.6	72.8	73.1	74.9	77.1	76.6	75.8	73.2	70.2	75.9	71.8	66.6	71.2	72.5	76.5	73.5	67.8	74.7	67.7	66.2	60.2	58.0	57.2	56.8	59.4	57.2	50.4	42.7
CN2	82.5	68.5	82.1	67.8	68.6	72.8	73.1	74.9	77.1	76.6	75.8	73.2	70.2	75.9	71.8	66.6	71.2	72.5	76.5	73.5	67.8	74.7	67.7	66.2	60.2	58.0	57.2	56.8	59.4	57.2	50.4	42.7

ตารางที่ ข.3 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 3

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	84.5	77.3	82.4	80.7	82.6	84.9	85.7	85.2	81.2	77.9	75.5	77.2	78.3	77.3	77.6	77.1	80.6	76.3	75.2	74.4	70.8	66.9	64.9	62.2	59.6	57.1	53.3	52.3	50.9	47.9	44.1	37.4
TA3	82.3	58.9	57.8	61.6	64.3	68.8	71.3	76.5	73.3	72.1	72.2	72.6	71.6	71.3	74.8	70.7	74.6	73.1	72.7	77.8	69.9	66.3	62.6	60.4	57.9	55.1	52.6	48.2	48.2	41.6	34.9	28.8
SA	80	61.5	66.8	68.0	71.3	75.3	73.5	77.4	78.4	72.1	73.1	73.9	71.9	70.1	79.6	70.1	73.6	70.1	70.0	69.5	64.3	63.9	64.1	61.0	54.2	51.6	48.1	44.9	42.1	37.6	33.1	28.3
MA	78.1	49.4	63.8	61.6	61.8	69.6	69.4	67.2	67.4	69.2	68.0	64.7	66.2	68.4	70.0	70.8	71.7	67.7	70.1	69.2	68.4	66.1	62.7	58.7	58.4	54.3	52.0	52.2	52.3	50.6	46.3	37.2
TB	84.6	71.8	83.5	86.3	84.5	86.1	86.1	85.5	82.5	78.9	77.0	79.4	77.5	77.1	77.4	76.9	80.6	76.6	74.9	74.7	70.6	67.0	64.7	62.7	59.6	57.0	53.1	52.6	51.2	47.8	42.9	36.7
SB	83.6	66.4	67.3	72.5	72.6	82.9	80.7	80.1	76.9	75.9	79.7	81.7	77.1	75.8	80.9	74.3	76.8	75.2	73.9	74.2	69.8	68.1	65.9	63.8	60.8	58.4	55.4	51.6	49.4	43.9	38.1	31.9
MB	77	53.8	60.5	58.2	63.1	66.0	67.6	73.3	70.3	70.4	65.6	67.5	64.2	67.6	69.5	70.9	69.2	68.0	68.7	68.2	66.7	65.2	59.9	56.8	56.7	52.8	50.0	52.0	52.5	51.3	45.9	37.1
TC	85.5	76.7	84.6	85.9	84.0	84.5	86.1	85.4	80.6	79.0	79.2	79.6	81.1	79.4	78.8	77.1	81.4	77.1	75.9	75.0	72.0	68.0	65.2	62.4	59.6	57.2	53.5	52.1	50.7	47.3	43.3	36.4
SC	83.2	67.9	70.2	78.9	80.1	77.9	70.6	72.5	74.8	75.6	77.1	78.5	74.3	76.7	79.2	74.3	76.4	75.1	74.0	74.4	70.3	68.9	66.4	64.3	61.7	59.2	56.2	52.1	49.6	44.3	38.7	32.7
MC	84.5	76.0	83.1	83.4	83.5	82.4	85.0	84.1	85.9	77.3	76.4	77.2	77.7	77.1	76.4	76.0	80.8	76.5	74.6	75.2	71.4	66.6	64.2	62.4	59.4	57.1	53.2	52.7	51.3	47.8	43.2	37.3
TN	85.6	72.9	80.4	82.0	82.3	85.2	83.0	83.7	82.2	79.5	76.6	76.4	79.2	78.4	78.6	77.5	81.9	78.7	76.3	75.7	72.3	68.0	65.9	63.1	60.5	57.5	53.5	51.8	50.4	46.6	42.3	36.2
SN	80.8	62.5	58.5	53.1	59.4	66.7	65.8	70.7	69.7	73.6	74.4	75.0	74.3	71.2	69.0	69.0	66.3	67.3	70.0	71.6	65.9	67.3	62.0	58.9	58.6	57.7	55.4	56.6	57.0	53.7	47.1	39.5
MN	80.2	62.3	68.0	68.8	72.6	77.5	76.7	79.0	75.3	74.7	74.0	76.3	73.8	71.0	79.6	71.0	73.7	70.5	69.7	69.7	64.3	63.4	63.2	59.5	54.1	51.3	47.8	44.5	41.9	37.5	32.9	28.7

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ความถี่ 1/3 ออคตาฟ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	84.3	57.6	81.8	57.6	56.0	71.3	70.1	78.1	76.5	79.3	78.0	74.1	77.1	77.2	77.9	77.3	77.7	74.4	75.6	76.6	71.2	70.3	67.1	64.9	64.7	57.6	55.6	57.5	57.7	52.3	47.9	47.2
CA2	84.3	57.6	81.8	57.6	56.0	71.3	70.1	78.1	76.5	79.3	78.0	74.1	77.1	77.2	77.9	77.3	77.7	74.4	75.6	76.6	71.2	70.3	67.1	64.9	64.7	57.6	55.6	57.5	57.7	52.3	47.9	47.2
CA3	84.3	57.6	81.8	57.6	56.0	71.3	70.1	78.1	76.5	79.3	78.0	74.1	77.1	77.2	77.9	77.3	77.7	74.4	75.6	76.6	71.2	70.3	67.1	64.9	64.7	57.6	55.6	57.5	57.7	52.3	47.9	47.2
CA4	84.3	57.6	81.8	57.6	56.0	71.3	70.1	78.1	76.5	79.3	78.0	74.1	77.1	77.2	77.9	77.3	77.7	74.4	75.6	76.6	71.2	70.3	67.1	64.9	64.7	57.6	55.6	57.5	57.7	52.3	47.9	47.2
CB1	76.8	54.4	76.3	60.3	64.3	66.4	63.4	75.6	74.1	72.0	71.1	72.5	70.6	70.7	66.7	67.6	71.0	69.3	68.0	66.7	65.2	62.1	60.4	57.5	53.9	49.7	46.8	44.1	41.6	37.5	33.5	30.3
CB2	76.8	54.4	76.3	60.3	64.3	66.4	63.4	75.6	74.1	72.0	71.1	72.5	70.6	70.7	66.7	67.6	71.0	69.3	68.0	66.7	65.2	62.1	60.4	57.5	53.9	49.7	46.8	44.1	41.6	37.5	33.5	30.3
CC1	84.7	57.9	75.4	62.7	60.8	67.6	68.3	73.1	71.6	70.1	70.0	69.8	73.4	76.9	76.6	74.9	76.4	80.2	78.8	73.1	69.9	70.5	66.2	60.9	61.5	63.6	57.6	58.9	58.0	54.4	49.2	39.5
CC2	84.7	57.9	75.4	62.7	60.8	67.6	68.3	73.1	71.6	70.1	70.0	69.8	73.4	76.9	76.6	74.9	76.4	80.2	78.8	73.1	69.9	70.5	66.2	60.9	61.5	63.6	57.6	58.9	58.0	54.4	49.2	39.5
CN1	75.5	67.3	63.9	65.8	67.4	69.5	70.7	76.8	78.9	79.6	76.5	71.3	68.8	68.2	66.8	63.8	67.4	65.4	63.9	67.4	62.7	63.4	61.3	59.8	55.2	53.1	50.0	47.4	45.2	42.1	38.9	35.4
CN2	75.5	67.3	63.9	65.8	67.4	69.5	70.7	76.8	78.9	79.6	76.5	71.3	68.8	68.2	66.8	63.8	67.4	65.4	63.9	67.4	62.7	63.4	61.3	59.8	55.2	53.1	50.0	47.4	45.2	42.1	38.9	35.4

ตารางที่ ข.4 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 4

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	84.9	57.1	75.4	63.7	64.1	66.6	77.1	80.3	78.9	70.0	69.0	70.7	73.6	75.5	76.1	75.3	69.2	73.0	74.4	74.0	71.4	69.3	66.3	60.9	61.2	63.9	57.2	58.5	56.4	52.5	47.8	37.7
TA3	82.4	64.0	66.5	65.4	77.4	76.6	83.6	72.8	73.5	72.9	70.2	72.7	70.5	68.3	74.5	71.6	77.0	72.2	70.1	71.6	65.2	62.8	60.5	57.1	54.5	52.7	49.6	46.9	45.9	41.1	36.0	30.9
SA	83.6	62.0	74.7	78.9	79.4	80.6	81.2	81.2	83.8	82.0	77.7	78.3	78.3	77.6	76.4	77.0	76.7	75.4	72.2	75.4	71.0	68.2	65.6	63.8	62.3	60.9	59.2	56.5	54.9	51.8	48.2	43.4
MA	76.7	71.0	74.7	70.8	70.3	75.2	67.2	67.5	69.9	67.3	68.7	68.4	76.1	66.2	67.3	67.1	65.1	70.5	69.9	63.9	67.5	66.4	58.8	55.4	52.9	50.6	49.2	46.2	44.7	42.3	39.7	35.1
TB	80.7	58.3	67.8	69.6	71.2	75.7	81.2	77.7	80.7	79.9	81.7	73.4	75.6	75.7	70.0	71.4	71.9	73.1	71.6	71.2	70.2	65.7	63.4	61.4	57.3	54.0	51.9	46.8	43.8	40.8	37.2	34.7
SB	81.5	60.4	56.6	75.8	73.3	73.6	75.7	73.0	65.3	69.9	66.7	71.1	72.2	71.8	69.5	68.6	70.7	66.5	66.3	71.5	66.9	67.9	62.0	58.5	58.6	57.7	55.5	56.5	57.4	54.4	48.1	40.5
MB	85.7	76.5	81.8	79.8	77.9	83.3	86.0	85.3	82.8	82.1	83.7	78.7	82.6	79.6	77.9	75.8	77.6	78.5	75.6	78.2	73.1	69.6	66.2	64.3	61.4	61.2	58.6	54.5	53.5	49.2	43.3	39.4
TC	84.5	61.2	76.5	62.6	59.5	63.7	70.3	73.7	74.2	78.9	76.6	72.4	75.1	75.4	77.7	70.5	72.1	70.5	78.2	74.7	71.2	70.0	66.8	64.6	64.0	58.8	55.2	55.1	53.6	49.0	44.2	37.6
SC	83.6	70.8	76.2	81.3	82.1	80.6	83.6	84.6	82.3	81.8	78.3	77.8	78.2	78.2	76.9	76.8	76.6	75.2	71.9	75.8	71.1	68.3	65.2	63.1	61.8	60.6	58.7	56.0	54.5	50.8	47.3	42.9
MC	79.5	60.7	61.9	66.6	74.5	74.3	74.2	72.6	73.2	70.8	68.5	69.0	71.1	70.2	79.7	69.6	71.0	71.8	68.9	67.5	63.8	61.1	59.1	56.1	54.1	51.1	47.8	45.3	44.8	39.1	33.1	28.0
TN	87.8	53.9	58.4	62.1	65.0	68.0	66.4	67.3	70.6	74.2	71.9	78.3	77.4	74.4	78.3	84.5	83.0	80.8	77.4	78.0	73.3	71.9	65.0	63.0	63.0	60.8	57.5	57.9	58.0	53.6	47.1	40.4
SN	82.7	62.1	68.3	70.8	75.5	73.6	77.0	74.3	73.6	74.3	71.7	73.9	71.3	69.1	85.1	71.0	74.9	72.0	68.9	69.4	64.4	61.8	60.1	57.2	54.2	51.8	48.9	46.0	45.0	39.6	34.7	29.9
MN	79.1	70.6	75.0	72.3	74.4	74.4	75.1	73.8	75.1	70.5	74.0	70.3	74.0	70.0	73.8	69.3	69.2	69.9	68.4	68.5	64.0	61.6	58.9	56.1	54.0	51.5	48.1	45.3	44.5	39.1	33.2	27.9

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	84.0	57.6	81.4	61.9	60.5	66.7	67.7	77.2	76.3	78.3	77.3	72.5	76.2	78.6	77.0	77.1	78.1	74.5	76.2	76.5	70.8	70.5	67.6	64.7	63.8	57.1	55.1	57.4	57.0	52.0	47.8	45.8
CA2	84.0	57.6	81.4	61.9	60.5	66.7	67.7	77.2	76.3	78.3	77.3	72.5	76.2	78.6	77.0	77.1	78.1	74.5	76.2	76.5	70.8	70.5	67.6	64.7	63.8	57.1	55.1	57.4	57.0	52.0	47.8	45.8
CA3	84.0	57.6	81.4	61.9	60.5	66.7	67.7	77.2	76.3	78.3	77.3	72.5	76.2	78.6	77.0	77.1	78.1	74.5	76.2	76.5	70.8	70.5	67.6	64.7	63.8	57.1	55.1	57.4	57.0	52.0	47.8	45.8
CA4	84.0	57.6	81.4	61.9	60.5	66.7	67.7	77.2	76.3	78.3	77.3	72.5	76.2	78.6	77.0	77.1	78.1	74.5	76.2	76.5	70.8	70.5	67.6	64.7	63.8	57.1	55.1	57.4	57.0	52.0	47.8	45.8
CB1	85.2	60.5	77.2	63.9	65.6	67.8	68.1	71.3	69.8	73.8	70.5	72.4	74.8	74.1	76.3	73.7	80.1	79.0	79.0	75.6	71.9	69.7	66.8	64.7	63.6	60.1	56.0	55.7	53.6	48.8	44.2	37.9
CB2	85.2	60.5	77.2	63.9	65.6	67.8	68.1	71.3	69.8	73.8	70.5	72.4	74.8	74.1	76.3	73.7	80.1	79.0	79.0	75.6	71.9	69.7	66.8	64.7	63.6	60.1	56.0	55.7	53.6	48.8	44.2	37.9
CC1	77.0	58.9	75.9	64.5	71.0	66.2	69.0	77.6	76.6	70.4	71.3	67.9	69.0	69.8	68.8	72.1	67.6	68.3	71.3	66.3	61.5	63.4	57.7	55.9	53.5	51.3	48.5	46.3	45.5	39.6	35.7	31.6
CC2	77.0	58.9	75.9	64.5	71.0	66.2	69.0	77.6	76.6	70.4	71.3	67.9	69.0	69.8	68.8	72.1	67.6	68.3	71.3	66.3	61.5	63.4	57.7	55.9	53.5	51.3	48.5	46.3	45.5	39.6	35.7	31.6
CN1	81.9	66.4	78.0	68.6	65.4	77.1	68.5	73.9	78.3	77.3	75.1	74.0	71.2	76.3	71.8	65.7	71.3	72.8	76.0	73.0	67.9	72.7	66.9	66.3	59.6	57.1	56.4	56.1	58.9	56.0	49.1	40.6
CN2	81.9	66.4	78.0	68.6	65.4	77.1	68.5	73.9	78.3	77.3	75.1	74.0	71.2	76.3	71.8	65.7	71.3	72.8	76.0	73.0	67.9	72.7	66.9	66.3	59.6	57.1	56.4	56.1	58.9	56.0	49.1	40.6

ตารางที่ ข.5 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 5

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 จอทพ (เดซิเบล)																							
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
TA2	88.4	63.9	62.9	61.6	58.8	67.7	68.8	84.2	80.5	82.7	69.7	70.3	66.7	70.5	70.5	73.8	76.1	77.3	73.1	75.4	73.8	75.8	76.0	69.0	70.1
TA3	84.5	61.2	76.5	62.6	69.5	77.7	74.2	76.6	78.9	78.2	63.7	70.3	73.7	70.5	72.1	70.5	72.4	75.1	75.4	74.7	71.2	70.0	66.8	64.6	64.0
SA	81.7	71.7	80.3	81.9	80.2	71.3	78.8	78.5	75.3	75.4	75.3	74.7	80.7	76.4	75.6	73.5	75.0	74.9	71.3	68.2	69.2	65.4	62.9	60.6	57.6
MA	89.2	51.2	57.7	58.0	57.3	69.7	69.1	68.5	81.1	85.0	83.7	71.8	70.8	72.9	76.3	78.7	76.2	73.6	75.6	76.7	70.2	71.2	71.9	65.5	67.7
TB	89.3	52.9	68.1	62.1	61.6	70.0	69.9	74.4	87.8	79.1	75.2	72.4	70.1	70.0	71.6	70.9	70.5	70.3	78.9	83.9	71.2	65.3	62.5	60.5	57.2
SB	81.7	68.0	75.4	70.6	76.8	75.9	82.6	81.2	78.6	76.2	74.0	77.6	75.6	77.0	75.7	73.2	74.9	74.4	71.2	67.5	69.2	64.8	62.5	60.1	57.1
MB	89	55.9	58.3	60.6	85.2	81.4	82.4	69.6	70.3	70.0	67.9	69.9	70.8	74.9	76.1	77.7	76.6	74.3	76.3	77.1	60.6	65.4	68.0	69.5	71.0
TC	88.4	69.6	63.7	63.0	80.2	84.3	82.3	70.7	69.9	69.3	67.5	70.0	69.9	61.3	60.2	69.4	73.5	75.3	77.7	75.9	73.9	75.7	75.8	70.0	70.5
SC	85.2	71.1	79.9	79.0	77.5	85.0	87.5	85.3	82.8	81.5	82.8	79.0	80.5	78.9	77.5	75.7	77.8	77.7	76.3	76.6	73.9	70.4	67.8	64.8	62.3
MC	85.6	81.6	82.7	84.3	78.9	84.4	83.6	83.6	83.8	86.1	86.3	79.6	80.9	79.5	77.1	74.6	78.0	78.2	75.7	78.6	73.6	69.5	66.0	64.0	60.9
TN	89.7	50.3	69.2	64.6	63.9	69.5	69.4	73.1	88.7	77.6	73.3	72.5	70.7	71.5	70.9	70.7	70.4	69.5	77.6	82.0	71.8	66.2	62.4	60.4	57.6
SN	82.8	71.8	72.2	72.7	72.9	73.6	78.8	81.6	77.1	76.2	78.0	76.8	82.1	77.2	76.4	74.2	76.6	76.3	73.0	69.6	70.3	66.2	63.6	61.3	58.5
MN	88.6	50.8	54.7	58.7	60.6	70.0	68.8	71.7	69.1	68.6	67.7	84.9	80.5	82.4	75.9	78.1	71.2	71.1	73.9	75.1	73.9	75.9	76.9	69.3	70.4

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 จอทพ (เดซิเบล)																							
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
CA1	84.3	57.6	81.8	57.6	56.0	71.3	70.1	78.1	76.5	79.3	78.0	74.1	77.1	77.2	77.9	77.3	77.7	74.4	75.6	76.6	71.2	70.3	67.1	64.9	64.7
CA2	84.3	57.6	81.8	57.6	56.0	71.3	70.1	78.1	76.5	79.3	78.0	74.1	77.1	77.2	77.9	77.3	77.7	74.4	75.6	76.6	71.2	70.3	67.1	64.9	64.7
CA3	84.3	57.6	81.8	57.6	56.0	71.3	70.1	78.1	76.5	79.3	78.0	74.1	77.1	77.2	77.9	77.3	77.7	74.4	75.6	76.6	71.2	70.3	67.1	64.9	64.7
CA4	84.3	57.6	81.8	57.6	56.0	71.3	70.1	78.1	76.5	79.3	78.0	74.1	77.1	77.2	77.9	77.3	77.7	74.4	75.6	76.6	71.2	70.3	67.1	64.9	64.7
CB1	81.7	57.4	86.1	63.8	69.9	75.2	73.2	72.2	71.3	71.4	66.7	71.0	72.2	76.3	78.3	71.1	75.7	73.5	72.0	71.8	69.7	67.3	65.0	63.4	60.5
CB2	81.7	57.4	86.1	63.8	69.9	75.2	73.2	72.2	71.3	71.4	66.7	71.0	72.2	76.3	78.3	71.1	75.7	73.5	72.0	71.8	69.7	67.3	65.0	63.4	60.5
CC1	84.6	62.6	70.1	68.6	65.3	74.1	66.2	71.1	70.2	71.1	69.7	74.8	76.8	73.4	79.1	77.3	78.5	78.3	77.8	73.4	69.0	68.5	65.0	63.3	61.7
CC2	84.6	62.6	70.1	68.6	65.3	74.1	66.2	71.1	70.2	71.1	69.7	74.8	76.8	73.4	79.1	77.3	78.5	78.3	77.8	73.4	69.0	68.5	65.0	63.3	61.7
CN1	79.8	64.9	62.5	62.6	63.7	65.9	70.9	77.1	77.5	76.8	76.2	78.3	79.2	77.8	70.3	70.2	72.0	68.0	69.2	71.1	67.8	64.1	59.5	58.0	53.5
CN2	79.8	64.9	62.5	62.6	63.7	65.9	70.9	77.1	77.5	76.8	76.2	78.3	79.2	77.8	70.3	70.2	72.0	68.0	69.2	71.1	67.8	64.1	59.5	58.0	53.5

ตารางที่ ข.6 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 6

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	89.7	53.4	66.5	67.7	63.7	88.6	70.2	74.2	80.5	77.3	73.0	70.0	70.4	72.7	71.6	70.0	70.0	70.0	76.8	80.5	71.6	66.0	63.0	60.9	58.9	56.3	53.2	49.7	47.2	41.9	38.5	34.1
TA3	85.2	73.5	82.7	84.2	79.9	84.7	87.4	86.7	82.4	81.8	78.8	79.7	78.5	78.6	78.1	76.8	81.6	77.9	75.8	74.8	71.6	67.6	65.9	63.0	60.0	57.4	53.7	52.8	51.2	48.1	43.8	37.6
SA	82.5	59.4	79.0	65.0	63.5	75.5	69.3	78.5	73.6	73.8	72.4	67.7	71.4	71.9	74.4	72.6	74.5	74.6	74.9	75.4	70.9	69.9	66.7	64.5	62.3	58.5	55.7	55.5	54.7	51.1	47.3	41.9
MA	81.6	55.2	81.2	63.8	63.2	69.4	69.5	76.6	74.2	76.1	75.5	70.2	69.5	70.6	72.2	71.0	74.1	72.6	73.0	75.5	69.7	69.9	65.6	63.5	61.9	57.7	55.0	55.1	54.5	51.2	47.2	42.1
TB	86.9	55.5	66.6	61.8	61.3	67.0	68.1	72.6	78.8	79.1	75.1	73.4	71.5	71.6	71.5	70.2	70.0	70.2	77.8	85.2	70.0	65.5	62.6	60.2	57.2	54.9	53.0	49.5	46.9	41.8	38.2	33.9
SB	82.1	54.9	62.6	81.6	64.7	69.1	70.1	78.8	76.2	75.5	69.7	68.3	69.5	71.6	72.6	72.5	74.1	72.8	73.8	76.1	70.3	69.5	65.3	63.4	61.7	57.8	55.3	55.1	54.2	50.6	46.4	41.2
MB	84.7	55.3	64.0	62.9	76.7	70.5	69.5	80.7	77.2	76.0	76.5	73.2	81.9	78.0	78.0	76.4	78.3	74.6	76.2	78.3	71.5	69.9	66.8	65.1	64.2	57.1	55.9	57.5	57.1	52.3	48.0	45.8
TC	86.5	51.2	68.1	65.1	63.0	66.9	69.9	73.2	82.0	77.2	72.2	84.6	71.3	70.8	71.2	70.6	68.8	69.7	77.8	77.1	69.4	65.9	62.4	60.5	57.8	55.5	52.9	47.5	44.4	39.9	36.7	32.2
SC	84.3	56.0	82.4	57.2	57.5	65.5	70.1	78.2	75.7	79.8	80.2	72.9	75.6	77.7	78.1	77.0	77.7	74.9	75.8	76.5	71.2	70.1	67.4	64.6	64.5	57.3	55.4	57.6	57.5	52.3	47.7	45.8
MC	84.7	55.2	82.3	59.7	60.0	71.3	68.2	74.1	78.5	76.3	76.9	75.0	76.3	77.5	77.3	77.0	78.4	75.1	76.9	77.2	71.6	70.4	67.2	64.9	64.4	57.5	56.1	57.8	57.8	52.2	47.8	46.1
TN	89.4	54.2	66.7	63.4	64.6	72.5	71.1	72.3	88.2	79.9	70.3	71.9	69.0	72.3	71.6	71.6	69.7	70.1	78.6	80.2	71.3	65.4	62.5	60.1	56.9	54.9	52.1	47.7	44.8	39.9	36.3	32.3
SN	82	57.3	78.5	67.6	63.6	75.6	79.1	67.7	75.8	75.5	69.0	70.2	69.7	72.4	73.2	71.9	75.0	72.6	74.4	75.3	69.5	69.7	65.7	63.9	61.5	57.6	55.0	55.1	54.1	50.9	46.7	41.4
MN	87.3	53.9	70.0	66.7	64.6	67.8	69.1	70.2	73.9	75.4	77.7	78.4	85.6	71.8	71.1	70.5	71.4	69.1	71.4	70.5	70.0	65.7	62.3	60.3	57.8	55.6	51.0	47.8	45.4	40.6	37.3	32.9

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่หัวความถี่ 1/3 ออกทาล (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	86.2	58.1	85.3	71.4	66.1	71.0	68.7	70.1	76.4	75.9	74.1	73.2	76.1	77.2	78.2	77.4	75.3	76.6	78.2	81.1	72.0	70.8	70.9	67.5	63.8	62.2	61.5	61.3	61.2	55.5	54.7	50.1
CA2	86.2	58.1	85.3	71.4	66.1	71.0	68.7	70.1	76.4	75.9	74.1	73.2	76.1	77.2	78.2	77.4	75.3	76.6	78.2	81.1	72.0	70.8	70.9	67.5	63.8	62.2	61.5	61.3	61.2	55.5	54.7	50.1
CA3	86.2	58.1	85.3	71.4	66.1	71.0	68.7	70.1	76.4	75.9	74.1	73.2	76.1	77.2	78.2	77.4	75.3	76.6	78.2	81.1	72.0	70.8	70.9	67.5	63.8	62.2	61.5	61.3	61.2	55.5	54.7	50.1
CA4	86.2	58.1	85.3	71.4	66.1	71.0	68.7	70.1	76.4	75.9	74.1	73.2	76.1	77.2	78.2	77.4	75.3	76.6	78.2	81.1	72.0	70.8	70.9	67.5	63.8	62.2	61.5	61.3	61.2	55.5	54.7	50.1
CB1	84.4	64.0	75.8	64.4	68.0	69.2	67.1	73.9	71.2	73.1	69.5	72.2	74.5	74.7	77.2	73.8	78.2	76.7	78.3	75.3	72.3	69.9	67.0	64.9	64.0	60.1	55.6	55.6	53.9	49.1	44.1	37.8
CB2	84.4	64.0	75.8	64.4	68.0	69.2	67.1	73.9	71.2	73.1	69.5	72.2	74.5	74.7	77.2	73.8	78.2	76.7	78.3	75.3	72.3	69.9	67.0	64.9	64.0	60.1	55.6	55.6	53.9	49.1	44.1	37.8
CC1	75.9	64.4	75.5	59.1	67.1	66.8	67.1	76.4	73.8	73.1	68.2	67.7	67.5	70.1	69.5	69.5	66.5	67.2	70.5	65.2	60.7	62.7	56.7	54.6	52.8	50.8	48.1	45.7	45.2	39.2	35.8	31.9
CC2	75.9	64.4	75.5	59.1	67.1	66.8	67.1	76.4	73.8	73.1	68.2	67.7	67.5	70.1	69.5	69.5	66.5	67.2	70.5	65.2	60.7	62.7	56.7	54.6	52.8	50.8	48.1	45.7	45.2	39.2	35.8	31.9
CN1	83.0	62.0	77.3	68.5	63.4	77.4	72.8	77.4	79.1	76.6	78.1	73.7	71.0	75.4	70.3	66.8	71.3	72.7	77.6	74.0	68.3	75.1	67.5	66.5	60.3	57.9	57.6	56.7	59.7	57.4	50.8	42.2
CN2	83.0	62.0	77.3	68.5	63.4	77.4	72.8	77.4	79.1	76.6	78.1	73.7	71.0	75.4	70.3	66.8	71.3	72.7	77.6	74.0	68.3	75.1	67.5	66.5	60.3	57.9	57.6	56.7	59.7	57.4	50.8	42.2

ตารางที่ ข.7 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 7

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	89.7	83.0	85.4	86.2	83.7	89.5	91.6	89.0	84.9	83.1	81.1	81.7	80.2	78.4	80.0	79.6	81.2	79.5	77.3	76.5	72.3	69.0	66.2	63.0	60.2	58.1	54.2	52.9	51.3	47.8	43.8	38.1
TA3	85.2	63.0	68.5	66.5	68.9	78.2	77.5	76.7	77.9	77.9	80.0	74.0	80.6	80.2	74.3	75.2	77.8	79.8	76.5	77.5	71.5	68.1	65.7	63.5	59.8	58.0	56.3	51.7	48.6	46.0	43.7	41.3
SA	85.7	52.9	67.9	68.1	69.2	77.1	75.9	80.6	81.8	78.6	80.0	75.7	77.8	78.1	75.5	75.6	79.0	80.4	76.7	77.8	71.6	68.6	66.0	63.8	60.5	58.3	56.1	51.6	48.6	45.8	43.2	40.8
MA	86.4	59.7	84.1	63.8	62.2	72.1	64.6	70.4	77.5	75.8	71.8	72.8	75.7	81.8	78.4	78.5	75.5	77.1	77.8	77.7	72.6	70.6	70.1	66.8	63.6	62.3	62.5	61.0	60.7	55.7	57.0	52.3
TB	88.2	57.2	59.2	66.0	83.6	80.9	82.0	60.9	69.8	68.6	71.4	69.9	70.8	66.6	70.5	69.2	72.2	77.3	78.5	75.5	73.5	75.4	75.4	69.6	70.6	66.9	62.8	64.4	66.1	62.5	59.9	57.4
SB	82.7	62.1	68.3	70.8	75.5	73.6	77.0	74.3	73.6	74.3	71.7	73.9	71.3	69.1	85.1	71.0	74.9	72.0	68.9	69.4	64.4	61.8	60.1	57.2	54.2	51.8	48.9	46.0	45.0	39.6	34.7	29.9
MB	86.4	51.5	85.6	62.6	63.7	69.2	71.8	77.1	72.8	75.9	75.3	71.7	76.5	77.8	78.6	77.6	75.1	76.9	78.2	81.3	72.8	70.7	70.8	67.2	63.3	62.1	62.0	60.4	59.7	55.2	54.2	50.4
TC	87.4	64.7	62.2	62.7	64.2	67.6	68.9	71.3	72.2	72.9	83.0	83.1	80.0	74.3	77.7	77.0	74.9	78.3	77.6	77.6	73.5	71.6	65.3	63.2	63.0	60.5	57.5	57.4	57.8	52.6	46.5	39.6
SC	84.9	70.5	76.6	80.3	78.4	79.8	82.2	82.0	82.5	85.2	79.3	80.7	79.0	78.7	77.8	77.4	78.3	78.9	74.3	72.4	70.9	68.2	66.0	64.0	62.6	61.6	59.2	56.2	54.4	51.6	48.3	45.3
MC	84.3	59.7	68.9	64.8	64.5	85.9	79.3	69.7	72.9	71.9	69.1	74.2	75.7	74.1	78.9	76.7	79.4	77.4	77.2	72.5	68.6	68.6	65.3	62.7	61.3	61.3	57.3	57.5	55.0	50.5	43.5	34.9
TN	86.4	71.9	82.4	84.2	83.6	86.5	88.9	88.5	84.0	81.4	80.7	81.8	78.8	78.0	80.9	79.8	80.5	78.9	77.5	76.2	72.2	68.7	66.1	63.2	60.7	57.6	53.9	52.5	51.2	47.3	42.7	36.5
SN	84.9	69.4	78.1	84.5	79.1	81.9	83.6	80.1	82.9	81.2	79.2	82.5	77.8	78.4	77.4	77.7	79.1	79.2	73.2	73.0	70.6	68.4	65.8	64.2	62.7	61.3	58.9	56.0	53.9	51.3	47.7	44.8
MN	84	63.0	68.7	75.2	71.7	76.1	74.9	76.5	79.1	78.8	77.7	77.9	80.1	75.5	74.2	78.4	74.5	75.3	70.6	69.0	70.9	66.7	62.7	60.1	57.3	54.5	49.6	46.0	42.6	39.0	35.2	32.3

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	82.9	56.8	85.9	60.5	66.2	72.4	68.3	71.2	70.3	69.4	67.9	72.5	71.5	79.6	81.2	72.0	76.4	74.0	72.1	72.5	70.0	68.0	65.4	63.3	61.8	61.3	54.1	54.1	49.1	46.7	43.5	37.3
CA2	82.9	56.8	85.9	60.5	66.2	72.4	68.3	71.2	70.3	69.4	67.9	72.5	71.5	79.6	81.2	72.0	76.4	74.0	72.1	72.5	70.0	68.0	65.4	63.3	61.8	61.3	54.1	54.1	49.1	46.7	43.5	37.3
CA3	82.9	56.8	85.9	60.5	66.2	72.4	68.3	71.2	70.3	69.4	67.9	72.5	71.5	79.6	81.2	72.0	76.4	74.0	72.1	72.5	70.0	68.0	65.4	63.3	61.8	61.3	54.1	54.1	49.1	46.7	43.5	37.3
CA4	82.9	56.8	85.9	60.5	66.2	72.4	68.3	71.2	70.3	69.4	67.9	72.5	71.5	79.6	81.2	72.0	76.4	74.0	72.1	72.5	70.0	68.0	65.4	63.3	61.8	61.3	54.1	54.1	49.1	46.7	43.5	37.3
CB1	80.8	56.2	70.2	70.8	73.0	78.0	82.7	78.7	78.3	80.5	80.4	72.5	76.6	75.4	70.6	72.5	72.0	73.2	70.8	71.1	70.1	66.9	64.4	62.2	58.1	54.9	52.4	47.8	44.4	41.4	38.3	35.8
CB2	80.8	56.2	70.2	70.8	73.0	78.0	82.7	78.7	78.3	80.5	80.4	72.5	76.6	75.4	70.6	72.5	72.0	73.2	70.8	71.1	70.1	66.9	64.4	62.2	58.1	54.9	52.4	47.8	44.4	41.4	38.3	35.8
CC1	85.4	78.3	78.3	73.8	70.5	68.7	70.9	71.4	71.9	72.1	72.0	73.1	74.6	74.8	75.5	75.7	77.9	79.8	80.2	73.6	70.6	70.5	66.6	61.2	62.0	64.5	57.7	58.6	56.7	53.3	47.5	38.5
CC2	85.4	78.3	78.3	73.8	70.5	68.7	70.9	71.4	71.9	72.1	72.0	73.1	74.6	74.8	75.5	75.7	77.9	79.8	80.2	73.6	70.6	70.5	66.6	61.2	62.0	64.5	57.7	58.6	56.7	53.3	47.5	38.5
CN1	87.2	54.7	60.9	61.2	63.3	64.4	67.9	70.9	71.4	71.0	71.6	73.8	74.5	75.9	78.9	80.0	80.1	79.4	82.9	76.8	70.9	70.8	66.7	63.5	62.7	62.9	59.3	59.9	60.0	56.3	51.5	42.9
CN2	87.2	54.7	60.9	61.2	63.3	64.4	67.9	70.9	71.4	71.0	71.6	73.8	74.5	75.9	78.9	80.0	80.1	79.4	82.9	76.8	70.9	70.8	66.7	63.5	62.7	62.9	59.3	59.9	60.0	56.3	51.5	42.9

ตารางที่ ข.8 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 8

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	85.3	72.9	80.0	82.4	79.6	84.7	85.9	85.0	81.0	79.0	78.4	77.5	78.7	78.5	77.8	76.9	78.9	78.3	77.0	75.8	72.2	70.0	68.5	66.5	63.9	62.0	58.8	56.6	53.8	51.7	47.7	40.8
TA3	86.8	55.5	66.6	61.8	61.3	67.0	68.1	72.6	78.8	79.1	75.1	73.4	71.5	71.6	71.5	70.2	70.0	70.2	77.8	85.2	70.0	65.5	62.6	60.2	57.2	54.9	53.0	49.5	46.9	41.8	38.2	33.9
SA	81.8	65.6	65.5	71.1	76.0	74.7	75.4	73.0	81.4	71.0	68.9	69.5	69.7	68.4	71.3	69.4	78.6	74.6	68.4	69.9	63.4	61.7	58.4	56.2	53.9	51.1	47.5	45.0	43.9	38.3	32.3	26.6
MA	84	74.8	74.0	78.1	74.2	77.7	78.8	81.4	80.8	80.0	76.8	78.2	80.4	76.3	79.9	76.7	73.9	76.7	75.5	74.5	70.5	68.1	62.6	62.2	60.2	56.4	52.6	49.4	48.7	43.4	39.7	34.9
TB	77.8	60.9	77.5	58.2	59.4	66.3	66.7	73.2	73.5	74.0	69.7	76.7	72.5	72.2	69.8	67.3	71.6	69.6	68.7	67.7	66.8	63.8	61.6	58.5	54.5	50.5	47.6	45.1	42.2	38.5	34.6	31.5
SB	81.5	63.0	66.9	69.9	75.9	83.5	75.5	72.4	74.8	74.4	72.4	76.6	73.7	69.2	75.9	70.0	73.7	71.5	69.0	69.0	63.3	62.6	59.2	56.4	54.3	51.3	48.2	45.4	44.2	39.1	33.4	28.1
MB	86.1	55.3	64.8	67.4	84.2	71.9	70.3	72.3	77.3	79.3	73.7	71.5	70.5	71.4	71.3	71.1	68.3	69.4	76.9	61.8	69.3	65.8	62.3	60.2	57.0	54.7	51.9	47.7	45.3	40.1	36.9	32.7
TC	87.7	51.0	64.5	65.2	61.7	71.4	68.7	72.8	78.1	77.1	71.0	72.6	71.1	70.8	71.8	70.8	71.5	69.2	77.8	86.1	70.1	65.5	63.0	60.6	57.6	55.1	52.7	49.0	46.7	41.4	37.8	33.9
SC	82.7	62.1	68.3	70.8	75.5	73.6	77.0	74.3	73.6	74.3	85.1	73.9	71.3	69.1	71.7	71.0	74.9	72.0	68.9	69.4	64.4	61.8	60.1	57.2	54.2	51.8	48.9	46.0	45.0	39.6	34.7	29.9
MC	85.9	73.3	80.8	79.2	81.5	80.0	85.1	82.6	90.9	79.7	78.3	80.2	81.9	80.7	79.5	79.3	77.3	77.4	74.4	78.2	73.8	71.5	69.4	63.8	61.2	58.3	56.3	53.9	51.4	47.5	44.2	39.9
TN	86.8	54.5	65.2	67.1	64.3	68.6	69.1	72.1	77.8	82.2	71.1	73.1	72.8	72.1	71.6	70.2	68.6	69.4	77.5	75.2	69.5	66.1	62.6	60.2	57.0	54.3	52.8	47.5	44.3	39.9	36.9	32.3
SN	82.3	65.8	63.9	68.4	75.4	72.7	82.0	75.2	73.8	70.7	69.1	71.2	70.6	69.6	75.9	69.6	77.8	76.6	68.7	69.0	64.1	61.7	59.5	55.8	54.0	51.2	48.1	45.2	44.5	39.3	33.6	28.3
MN	84.7	54.3	75.5	62.4	62.6	69.8	68.7	70.0	70.9	71.7	68.8	71.8	74.3	80.0	76.6	74.3	74.3	77.0	78.7	75.1	71.5	69.8	66.6	64.4	63.7	59.0	55.8	55.3	53.2	48.7	43.5	37.5

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	86.8	60.9	84.7	65.7	62.7	74.0	68.5	74.2	79.0	76.9	74.9	73.5	77.0	78.0	77.5	78.0	75.9	77.5	78.4	82.2	72.2	70.1	72.1	67.1	63.4	62.7	62.2	61.5	61.0	55.9	56.1	50.9
CA2	86.8	60.9	84.7	65.7	62.7	74.0	68.5	74.2	79.0	76.9	74.9	73.5	77.0	78.0	77.5	78.0	75.9	77.5	78.4	82.2	72.2	70.1	72.1	67.1	63.4	62.7	62.2	61.5	61.0	55.9	56.1	50.9
CA3	86.8	60.9	84.7	65.7	62.7	74.0	68.5	74.2	79.0	76.9	74.9	73.5	77.0	78.0	77.5	78.0	75.9	77.5	78.4	82.2	72.2	70.1	72.1	67.1	63.4	62.7	62.2	61.5	61.0	55.9	56.1	50.9
CA4	86.8	60.9	84.7	65.7	62.7	74.0	68.5	74.2	79.0	76.9	74.9	73.5	77.0	78.0	77.5	78.0	75.9	77.5	78.4	82.2	72.2	70.1	72.1	67.1	63.4	62.7	62.2	61.5	61.0	55.9	56.1	50.9
CB1	82.5	59.2	86.2	63.9	66.1	76.3	73.0	76.2	71.2	71.3	68.7	70.5	73.4	78.6	80.2	71.0	75.8	74.0	73.0	72.0	69.9	67.7	65.6	64.3	62.9	60.6	54.5	53.9	49.0	47.3	43.9	37.2
CB2	82.5	59.2	86.2	63.9	66.1	76.3	73.0	76.2	71.2	71.3	68.7	70.5	73.4	78.6	80.2	71.0	75.8	74.0	73.0	72.0	69.9	67.7	65.6	64.3	62.9	60.6	54.5	53.9	49.0	47.3	43.9	37.2
CC1	76.1	64.2	75.4	59.1	67.5	65.3	69.6	82.2	71.9	72.6	67.4	66.7	67.4	69.7	68.8	70.1	66.7	66.6	70.8	66.0	61.6	62.3	56.8	54.7	53.0	50.7	48.3	46.3	45.2	39.0	35.5	32.0
CC2	76.1	64.2	75.4	59.1	67.5	65.3	69.6	82.2	71.9	72.6	67.4	66.7	67.4	69.7	68.8	70.1	66.7	66.6	70.8	66.0	61.6	62.3	56.8	54.7	53.0	50.7	48.3	46.3	45.2	39.0	35.5	32.0
CN1	83.5	73.2	82.6	72.6	71.3	74.2	73.4	76.4	77.4	78.0	76.1	73.7	71.2	74.4	70.9	66.9	71.8	73.3	78.2	74.3	69.1	75.7	68.5	66.8	60.4	58.7	58.5	57.6	60.5	58.5	52.3	44.1
CN2	83.5	73.2	82.6	72.6	71.3	74.2	73.4	76.4	77.4	78.0	76.1	73.7	71.2	74.4	70.9	66.9	71.8	73.3	78.2	74.3	69.1	75.7	68.5	66.8	60.4	58.7	58.5	57.6	60.5	58.5	52.3	44.1

ตารางที่ ข.9 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 9

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	85.3	77.1	80.3	77.9	83.7	88.1	83.7	81.9	80.2	81.5	80.3	79.3	81.9	82.6	79.5	77.0	77.4	76.8	75.7	77.0	73.2	67.4	64.9	63.1	62.5	63.9	60.4	58.5	58.0	54.9	47.8	44.5
TA3	86.8	48.5	62.8	62.7	60.0	70.4	69.5	72.0	69.9	72.9	69.4	72.0	76.1	75.3	76.2	78.3	78.2	79.3	83.1	77.3	70.6	70.4	67.4	62.9	62.2	62.5	58.8	58.8	59.5	55.4	50.8	42.5
SA	80.8	72.5	75.0	76.5	74.1	77.9	77.2	80.2	76.2	72.6	70.3	74.6	75.1	74.4	73.4	73.2	74.9	72.8	72.9	71.5	67.6	65.2	62.6	59.9	57.1	53.6	51.0	49.1	47.0	43.2	37.7	31.1
MA	79.8	61.2	67.1	74.8	73.5	77.5	79.1	78.5	74.8	71.4	72.2	74.2	73.4	72.5	73.0	72.7	73.5	72.0	72.1	71.3	66.1	63.3	61.5	58.4	55.3	52.1	49.6	48.2	46.5	42.7	37.5	30.5
TB	83	72.6	80.8	74.1	74.6	76.3	76.0	77.0	77.1	74.9	75.2	77.2	73.7	71.1	77.1	76.0	71.9	73.2	63.9	65.5	67.3	65.3	63.0	60.1	56.9	53.7	51.4	48.2	48.1	43.6	36.7	31.2
SB	87.1	51.6	59.5	59.9	60.5	67.9	72.4	68.0	79.5	83.2	79.7	78.9	74.9	75.3	77.5	71.3	72.1	70.4	70.9	76.7	70.9	70.5	66.7	63.3	62.5	62.6	58.8	58.8	59.2	55.5	50.5	42.4
MB	78.9	65.1	75.6	79.0	75.8	76.6	77.5	78.6	78.9	72.6	70.7	72.8	72.8	71.2	71.3	70.9	71.8	70.5	71.3	70.7	66.2	63.8	61.7	58.9	56.9	53.4	50.8	49.6	47.4	43.7	38.3	31.5
TC	88.6	71.0	63.7	61.4	84.6	80.5	82.5	71.6	68.3	68.9	67.4	71.4	69.4	74.7	75.3	77.6	75.5	74.0	75.8	75.5	61.7	64.7	67.5	69.8	70.6	66.9	62.4	64.4	66.2	62.4	60.1	58.2
SC	82.7	63.9	68.1	73.5	74.6	76.0	78.2	79.8	77.5	76.1	74.0	75.6	71.6	70.9	75.4	70.9	79.0	76.1	71.5	74.8	66.9	64.9	62.9	60.0	56.6	53.6	52.2	48.4	48.2	43.7	36.8	31.7
MC	85.9	79.1	82.8	83.7	83.8	80.9	86.3	82.6	81.2	82.0	79.0	79.9	89.4	89.0	81.4	76.8	77.6	77.6	76.0	77.4	74.1	67.8	65.0	63.5	63.1	64.4	60.7	59.5	58.3	54.7	48.4	45.0
TN	88.2	59.6	60.2	57.8	60.6	66.2	67.8	71.5	69.7	80.2	83.2	82.7	70.6	69.1	71.4	71.1	72.8	76.1	77.4	75.8	73.7	75.6	75.9	69.3	70.3	67.2	62.8	64.2	65.8	62.4	59.8	57.6
SN	81.2	75.6	63.8	64.9	65.3	73.3	73.5	76.8	78.5	71.4	71.5	71.7	71.8	70.0	73.5	69.9	74.9	73.9	71.4	75.6	68.9	66.0	62.4	59.6	56.9	54.6	51.8	47.4	47.4	40.9	33.7	27.6
MN	89.6	53.4	66.5	67.7	63.7	69.0	70.2	74.2	80.5	77.3	73.0	88.6	70.0	72.7	71.6	70.0	70.0	70.0	76.8	70.0	71.6	66.0	63.0	60.9	58.9	56.3	53.2	49.7	47.2	41.9	38.5	34.1

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 จอทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	83.0	53.3	86.0	63.0	65.0	72.4	67.7	74.8	72.2	73.6	69.7	70.0	72.4	79.5	81.8	72.6	75.9	74.1	71.7	73.0	70.6	68.3	66.5	63.9	61.6	61.7	54.5	55.3	49.6	46.8	43.4	37.4
CA2	83.0	53.3	86.0	63.0	65.0	72.4	67.7	74.8	72.2	73.6	69.7	70.0	72.4	79.5	81.8	72.6	75.9	74.1	71.7	73.0	70.6	68.3	66.5	63.9	61.6	61.7	54.5	55.3	49.6	46.8	43.4	37.4
CA3	83.0	53.3	86.0	63.0	65.0	72.4	67.7	74.8	72.2	73.6	69.7	70.0	72.4	79.5	81.8	72.6	75.9	74.1	71.7	73.0	70.6	68.3	66.5	63.9	61.6	61.7	54.5	55.3	49.6	46.8	43.4	37.4
CA4	83.0	53.3	86.0	63.0	65.0	72.4	67.7	74.8	72.2	73.6	69.7	70.0	72.4	79.5	81.8	72.6	75.9	74.1	71.7	73.0	70.6	68.3	66.5	63.9	61.6	61.7	54.5	55.3	49.6	46.8	43.4	37.4
CB1	83.1	53.4	86.6	63.6	67.0	77.8	68.2	75.2	72.7	72.6	68.7	70.7	73.8	78.3	81.6	72.5	75.5	74.3	72.3	72.6	71.2	69.1	66.8	64.8	62.7	62.7	55.3	55.5	49.5	47.5	43.9	37.3
CB2	83.1	53.4	86.6	63.6	67.0	77.8	68.2	75.2	72.7	72.6	68.7	70.7	73.8	78.3	81.6	72.5	75.5	74.3	72.3	72.6	71.2	69.1	66.8	64.8	62.7	62.7	55.3	55.5	49.5	47.5	43.9	37.3
CC1	76.8	54.7	76.0	66.5	69.2	70.2	71.0	78.6	74.8	72.8	69.6	65.8	68.1	72.7	69.1	71.4	67.4	67.2	71.3	66.3	61.2	63.2	58.0	55.6	53.5	51.6	48.7	46.3	45.5	39.7	35.6	31.7
CC2	76.8	54.7	76.0	66.5	69.2	70.2	71.0	78.6	74.8	72.8	69.6	65.8	68.1	72.7	69.1	71.4	67.4	67.2	71.3	66.3	61.2	63.2	58.0	55.6	53.5	51.6	48.7	46.3	45.5	39.7	35.6	31.7
CN1	76.0	55.4	61.4	65.6	66.7	71.0	73.8	75.2	78.1	79.3	76.2	70.2	69.2	68.6	66.4	64.5	68.1	66.4	65.6	67.8	63.3	64.2	61.7	59.7	55.7	53.1	50.6	47.8	45.9	42.8	39.9	36.3
CN2	76.0	55.4	61.4	65.6	66.7	71.0	73.8	75.2	78.1	79.3	76.2	70.2	69.2	68.6	66.4	64.5	68.1	66.4	65.6	67.8	63.3	64.2	61.7	59.7	55.7	53.1	50.6	47.8	45.9	42.8	39.9	36.3

ตารางที่ ข.10 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 10

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	83.2	60.7	65.0	74.1	81.0	76.6	79.4	77.1	77.2	73.0	70.6	70.0	75.6	75.9	74.1	69.3	68.8	69.9	64.9	67.1	68.5	68.0	64.7	63.1	61.4	61.0	57.4	58.0	55.4	50.6	43.9	35.3
TA3	88	54.4	69.2	65.5	64.1	68.4	66.6	78.3	86.5	79.1	69.2	72.4	70.2	71.9	70.9	71.1	73.1	69.6	73.0	80.6	70.6	65.5	62.1	60.5	58.6	56.0	53.5	50.3	48.1	42.8	38.9	34.9
SA	81.7	53.0	57.5	55.0	64.7	68.8	73.8	79.0	74.7	76.0	67.3	65.9	69.6	69.2	65.3	70.1	72.1	71.1	69.5	72.3	66.8	67.7	62.9	58.5	58.3	57.8	55.9	56.4	57.6	54.6	48.2	41.3
MA	80.3	63.7	65.5	71.3	71.6	76.6	79.8	75.5	75.5	72.8	74.6	78.4	74.0	71.1	77.8	70.8	74.9	69.7	69.8	68.3	63.8	64.2	64.4	60.3	54.2	51.7	47.8	44.5	41.7	37.3	32.6	27.8
TB	87.8	60.6	86.2	66.1	63.4	70.4	67.1	73.5	83.1	76.3	72.5	71.7	71.8	71.0	70.1	69.7	72.8	69.6	78.4	68.6	70.4	66.0	62.6	60.9	57.5	55.4	53.7	49.1	46.6	41.4	37.9	33.9
SB	85	60.8	67.0	80.5	79.0	79.1	76.3	76.2	78.7	73.9	79.8	78.9	75.2	74.4	77.8	79.4	76.9	77.3	68.5	69.7	71.3	68.4	65.7	63.6	60.1	57.9	56.3	51.4	48.3	45.9	43.4	41.2
MB	84.4	65.6	75.0	77.2	82.9	79.9	81.8	82.6	80.8	83.3	79.2	78.8	77.9	77.5	76.3	77.1	76.1	74.7	72.1	74.0	70.5	67.8	64.9	63.2	61.9	60.3	58.3	55.6	54.1	50.7	46.7	42.6
TC	86.7	57.1	73.1	66.1	65.3	70.1	69.0	85.8	73.1	71.8	69.8	67.5	72.7	77.5	77.1	79.0	80.5	78.6	78.1	79.6	73.7	72.7	70.9	68.3	67.5	63.1	60.2	61.0	62.3	58.8	54.7	45.9
SC	85	74.8	75.5	73.9	71.7	80.7	77.2	79.8	78.2	78.5	79.9	73.4	81.5	78.7	75.6	74.6	77.9	79.5	76.6	76.5	71.1	68.3	65.8	63.5	60.0	57.9	56.1	51.5	48.5	45.6	43.1	40.9
MC	80	61.5	66.1	71.5	72.2	76.6	76.9	78.5	74.2	72.4	79.8	72.7	73.3	69.5	73.7	70.0	73.8	69.6	70.0	70.0	64.2	63.2	62.0	58.8	54.8	52.2	48.5	45.2	42.3	37.8	32.9	28.4
TN	84.8	59.2	67.8	79.9	78.4	80.9	77.4	77.2	67.1	66.9	75.2	74.8	71.7	71.5	69.7	70.8	73.5	74.2	74.2	72.5	68.5	68.2	64.8	63.5	61.3	61.4	57.5	57.6	55.2	50.4	43.7	35.5
SN	83.4	56.6	63.9	75.0	72.7	75.4	71.0	75.9	79.5	74.5	72.6	72.6	77.5	75.2	73.1	76.9	74.2	80.8	71.9	68.3	71.6	68.4	62.2	59.3	57.2	54.2	49.4	46.7	43.1	39.8	35.4	32.4
MN	84	58.9	66.1	64.2	81.0	74.4	69.7	68.1	70.4	69.9	72.8	76.7	73.0	74.0	78.4	77.4	77.1	76.9	72.3	66.0	68.0	67.8	64.1	62.5	60.6	61.3	57.5	57.6	55.3	50.3	43.8	34.9

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	87.4	56.1	74.5	70.3	68.7	74.0	70.6	77.0	76.5	74.7	75.3	74.6	74.1	75.3	77.7	81.9	82.5	79.6	79.6	78.8	74.7	72.3	70.6	70.2	69.6	66.9	66.3	61.7	60.3	58.8	56.7	51.5
CA2	87.4	56.1	74.5	70.3	68.7	74.0	70.6	77.0	76.5	74.7	75.3	74.6	74.1	75.3	77.7	81.9	82.5	79.6	79.6	78.8	74.7	72.3	70.6	70.2	69.6	66.9	66.3	61.7	60.3	58.8	56.7	51.5
CA3	87.4	56.1	74.5	70.3	68.7	74.0	70.6	77.0	76.5	74.7	75.3	74.6	74.1	75.3	77.7	81.9	82.5	79.6	79.6	78.8	74.7	72.3	70.6	70.2	69.6	66.9	66.3	61.7	60.3	58.8	56.7	51.5
CA4	87.4	56.1	74.5	70.3	68.7	74.0	70.6	77.0	76.5	74.7	75.3	74.6	74.1	75.3	77.7	81.9	82.5	79.6	79.6	78.8	74.7	72.3	70.6	70.2	69.6	66.9	66.3	61.7	60.3	58.8	56.7	51.5
CB1	77.6	51.0	76.1	57.2	62.0	66.6	64.2	69.4	71.3	71.8	70.5	71.6	72.9	72.1	68.3	67.5	72.3	69.1	69.5	67.4	66.0	63.0	60.7	57.9	54.5	50.1	47.6	45.3	42.5	38.6	35.1	31.7
CB2	77.6	51.0	76.1	57.2	62.0	66.6	64.2	69.4	71.3	71.8	70.5	71.6	72.9	72.1	68.3	67.5	72.3	69.1	69.5	67.4	66.0	63.0	60.7	57.9	54.5	50.1	47.6	45.3	42.5	38.6	35.1	31.7
CC1	87.2	58.3	65.3	63.8	61.9	71.6	68.6	72.8	70.3	72.4	72.0	71.6	74.6	74.6	77.7	78.8	78.6	80.2	83.4	77.0	70.3	70.5	66.2	63.3	62.2	62.6	58.6	59.0	58.9	55.1	50.6	41.8
CC2	87.2	58.3	65.3	63.8	61.9	71.6	68.6	72.8	70.3	72.4	72.0	71.6	74.6	74.6	77.7	78.8	78.6	80.2	83.4	77.0	70.3	70.5	66.2	63.3	62.2	62.6	58.6	59.0	58.9	55.1	50.6	41.8
CN1	79.2	65.8	67.4	70.6	66.8	70.2	75.0	83.9	79.4	79.5	76.2	74.4	69.7	71.1	69.1	65.9	71.2	69.6	73.7	69.6	64.3	67.9	63.1	60.2	54.4	50.3	51.0	49.3	50.8	45.9	40.2	32.5
CN2	79.2	65.8	67.4	70.6	66.8	70.2	75.0	83.9	79.4	79.5	76.2	74.4	69.7	71.1	69.1	65.9	71.2	69.6	73.7	69.6	64.3	67.9	63.1	60.2	54.4	50.3	51.0	49.3	50.8	45.9	40.2	32.5

ตารางที่ ข.11 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 11

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	84.2	75.9	75.8	73.7	77.1	75.7	74.6	76.0	82.2	78.9	77.9	70.0	77.6	75.7	75.8	79.2	74.8	78.3	78.7	69.8	70.6	68.1	63.0	60.4	57.1	54.4	49.3	45.9	42.2	38.8	34.9	32.1
TA3	87.5	50.8	69.2	66.4	65.8	70.1	85.9	78.2	76.0	76.2	72.7	72.7	71.3	70.7	71.4	70.7	70.8	69.5	68.9	69.5	71.9	65.4	62.3	60.2	57.4	55.0	51.5	48.3	45.9	41.0	37.4	33.1
SA	79.4	61.4	71.3	75.6	73.3	76.3	75.9	77.1	73.5	74.4	74.4	75.8	73.2	71.8	73.3	71.9	72.2	70.9	71.3	70.4	66.8	64.6	62.3	59.9	57.0	54.1	51.5	49.6	47.2	44.1	40.4	35.8
MA	83.4	55.2	71.9	64.6	69.1	70.6	71.2	76.9	77.5	76.9	74.8	70.0	82.1	72.5	72.4	71.9	74.6	71.1	70.8	75.5	72.6	68.1	66.2	61.3	57.0	54.1	50.4	47.2	43.7	39.5	35.2	31.6
TB	82.8	62.4	81.1	68.7	66.9	71.4	77.2	88.8	74.1	77.1	77.2	71.6	72.8	73.1	74.6	73.3	74.8	73.2	75.7	76.0	69.7	69.9	66.0	64.4	62.1	58.5	55.9	55.6	54.2	51.1	47.0	41.8
SB	83	54.8	70.2	62.5	69.8	70.8	73.1	75.7	80.7	78.9	73.6	71.4	75.0	72.8	72.0	71.5	73.2	71.1	72.2	79.1	72.7	67.8	65.6	61.7	57.0	53.9	50.2	46.8	43.6	38.9	35.1	31.5
MB	79.4	62.6	72.0	73.8	72.7	76.4	78.8	75.4	73.2	73.6	74.4	78.2	75.2	73.0	73.2	71.6	71.6	70.9	70.7	70.6	66.6	63.9	61.1	58.7	55.7	52.8	50.4	48.9	46.8	43.1	39.1	34.0
TC	85.3	71.5	77.3	81.2	81.9	90.2	84.1	81.8	83.0	80.7	78.2	80.4	80.0	80.2	77.9	78.1	77.4	77.0	74.1	78.1	72.7	70.8	68.0	63.8	60.9	58.4	56.2	53.7	51.3	47.7	43.8	39.6
SC	86	55.3	64.8	67.4	61.8	84.2	70.3	72.3	77.3	79.3	73.7	71.5	70.5	71.4	71.3	71.1	68.3	69.4	76.9	71.9	69.3	65.8	62.3	60.2	57.0	54.7	51.9	47.7	45.3	40.1	36.9	32.7
MC	84.1	67.6	69.0	76.0	70.0	73.6	76.4	77.3	78.2	77.1	78.4	71.4	77.5	76.2	75.5	79.2	73.7	76.2	81.5	69.2	70.6	67.1	63.1	60.0	57.8	54.7	48.9	45.9	42.3	39.0	35.2	32.3
TN	88.8	53.4	67.2	63.9	63.6	70.6	69.6	72.2	77.6	77.4	87.4	78.6	70.5	71.2	71.4	70.8	68.9	69.7	74.0	71.8	70.9	66.0	62.7	60.6	57.1	54.7	51.6	48.5	45.9	41.1	37.5	33.1
SN	85.1	58.8	70.5	65.0	65.1	67.9	69.4	75.1	71.8	72.4	69.6	72.8	74.0	74.6	77.2	75.3	83.1	77.7	79.3	75.1	71.5	70.2	67.1	64.8	64.0	60.0	55.7	55.9	53.9	48.9	44.1	38.1
MN	86.2	50.0	68.8	65.5	65.1	70.4	68.4	73.1	84.3	79.4	75.2	72.9	71.5	71.9	71.6	70.8	68.8	69.3	77.2	82.0	69.5	66.0	62.7	60.6	57.8	55.5	54.3	49.5	47.2	42.1	38.4	34.2

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	84.0	56.3	82.6	58.2	62.4	70.2	66.9	76.6	75.5	76.6	76.6	73.4	76.8	76.3	76.9	76.6	77.6	73.8	76.0	76.2	70.9	70.1	67.0	65.0	64.1	57.4	55.7	57.6	57.8	53.2	48.7	47.1
CA2	84.0	56.3	82.6	58.2	62.4	70.2	66.9	76.6	75.5	76.6	76.6	73.4	76.8	76.3	76.9	76.6	77.6	73.8	76.0	76.2	70.9	70.1	67.0	65.0	64.1	57.4	55.7	57.6	57.8	53.2	48.7	47.1
CA3	84.0	56.3	82.6	58.2	62.4	70.2	66.9	76.6	75.5	76.6	76.6	73.4	76.8	76.3	76.9	76.6	77.6	73.8	76.0	76.2	70.9	70.1	67.0	65.0	64.1	57.4	55.7	57.6	57.8	53.2	48.7	47.1
CA4	84.0	56.3	82.6	58.2	62.4	70.2	66.9	76.6	75.5	76.6	76.6	73.4	76.8	76.3	76.9	76.6	77.6	73.8	76.0	76.2	70.9	70.1	67.0	65.0	64.1	57.4	55.7	57.6	57.8	53.2	48.7	47.1
CB1	82.0	55.3	85.5	61.2	66.1	74.0	71.7	75.4	69.9	73.1	67.8	68.7	73.1	78.5	78.0	70.1	75.5	74.1	72.5	72.1	70.1	67.1	64.9	63.4	60.9	59.4	53.8	52.5	48.6	47.0	43.4	36.7
CB2	82.0	55.3	85.5	61.2	66.1	74.0	71.7	75.4	69.9	73.1	67.8	68.7	73.1	78.5	78.0	70.1	75.5	74.1	72.5	72.1	70.1	67.1	64.9	63.4	60.9	59.4	53.8	52.5	48.6	47.0	43.4	36.7
CC1	77.9	73.7	71.5	69.9	65.5	71.5	68.3	74.4	75.2	70.7	67.5	66.4	65.8	68.5	68.3	72.3	70.6	72.5	71.2	66.3	63.4	62.5	60.3	57.6	55.3	51.9	48.3	47.0	43.9	40.1	36.4	31.9
CC2	77.9	73.7	71.5	69.9	65.5	71.5	68.3	74.4	75.2	70.7	67.5	66.4	65.8	68.5	68.3	72.3	70.6	72.5	71.2	66.3	63.4	62.5	60.3	57.6	55.3	51.9	48.3	47.0	43.9	40.1	36.4	31.9
CN1	86.9	53.9	55.3	58.1	64.4	67.4	69.6	70.7	73.5	72.2	69.5	72.7	74.9	74.6	78.2	78.6	78.3	79.7	83.0	77.1	70.4	69.7	66.4	62.7	62.3	62.3	59.1	59.0	59.0	55.2	49.6	41.3
CN2	86.9	53.9	55.3	58.1	64.4	67.4	69.6	70.7	73.5	72.2	69.5	72.7	74.9	74.6	78.2	78.6	78.3	79.7	83.0	77.1	70.4	69.7	66.4	62.7	62.3	62.3	59.1	59.0	59.0	55.2	49.6	41.3

ตารางที่ ข.12 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 12

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	84.3	64.0	70.8	64.4	68.0	69.2	67.1	73.9	71.2	73.1	69.5	72.2	74.5	74.7	77.2	78.8	82.2	78.7	78.3	75.3	72.3	69.9	67.0	64.9	64.0	60.1	55.6	55.6	53.9	49.1	44.1	37.8
TA3	85.3	64.0	73.6	70.7	67.1	79.0	79.0	83.3	81.7	82.5	81.3	75.4	77.1	80.3	77.0	76.0	77.7	76.5	77.8	77.1	74.8	67.6	64.6	61.6	58.0	58.0	55.3	49.9	48.4	45.6	42.7	40.1
SA	79.4	60.0	69.1	66.2	65.7	69.6	75.4	77.7	79.0	78.9	75.9	73.8	68.3	70.0	68.0	66.0	71.4	70.6	73.7	70.7	64.9	68.7	62.8	60.5	54.5	50.3	51.7	50.4	51.8	46.9	41.6	33.2
MA	83.2	65.4	73.6	71.6	80.9	77.9	70.6	74.8	75.3	75.6	77.8	71.0	76.6	76.2	75.8	79.3	74.3	74.7	77.0	69.7	68.2	68.4	62.7	60.0	57.5	54.3	49.3	46.0	42.3	39.1	35.4	32.3
TB	88.7	59.6	59.1	60.3	64.7	62.9	67.1	71.4	68.6	68.3	67.7	71.1	70.4	85.2	81.4	73.7	74.9	77.3	83.0	75.6	74.0	76.0	75.8	69.3	70.5	66.9	62.6	64.1	65.8	62.3	59.8	57.4
SB	85.4	62.5	74.9	68.8	67.4	79.0	80.6	82.4	79.7	82.7	84.2	74.4	79.8	80.1	77.7	76.9	77.5	75.7	78.0	77.1	74.6	68.0	64.7	62.1	58.5	58.1	55.6	50.6	48.7	45.9	43.1	40.5
MB	78	56.9	73.2	56.5	60.5	63.7	65.8	70.5	66.1	69.9	71.5	77.1	74.8	71.7	69.4	68.5	72.0	69.8	69.5	67.9	66.9	63.8	61.4	58.1	54.8	50.4	47.9	45.3	42.4	38.7	34.9	31.7
TC	88.6	65.4	60.9	60.9	58.2	77.6	85.1	83.1	80.0	74.2	76.0	71.1	71.0	75.7	74.1	75.9	76.7	68.0	66.0	64.6	67.5	68.9	69.2	69.5	70.3	66.7	62.6	63.8	65.8	62.5	59.6	57.1
SC	81	61.1	69.7	66.9	70.5	79.5	76.4	76.2	73.0	72.2	73.8	75.6	73.8	71.9	73.9	75.3	74.3	72.3	73.5	72.6	67.1	65.4	63.0	59.3	56.7	53.9	51.3	48.2	46.8	43.2	38.6	32.3
MC	83.8	64.8	68.4	68.9	72.2	74.4	76.3	78.8	81.0	77.9	76.7	69.9	76.6	75.4	75.5	78.8	75.2	77.0	78.4	69.6	70.5	68.1	62.8	60.1	57.6	54.2	49.4	45.9	42.5	39.0	35.3	32.3
TN	86.7	72.6	79.0	78.4	75.2	83.4	86.4	84.8	81.7	81.7	84.6	81.1	82.8	82.5	79.4	76.3	78.6	79.1	77.0	78.4	74.3	71.4	68.2	65.9	62.2	61.8	59.1	55.6	54.2	49.8	44.1	40.5
SN	80.8	62.3	68.3	70.1	76.0	80.0	76.8	71.5	70.1	73.6	75.1	75.7	71.2	70.8	74.1	75.9	70.6	74.0	75.1	68.3	67.9	63.1	59.1	57.1	54.9	54.9	53.3	47.7	47.2	41.3	34.4	28.7
MN	81.6	67.5	66.7	69.7	72.2	74.5	75.9	79.0	72.9	73.8	73.9	75.2	73.3	72.2	74.6	75.9	74.5	73.5	74.5	73.2	66.8	65.6	63.2	59.6	56.8	54.5	51.9	48.9	47.3	44.1	39.2	32.9

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	82.5	56.1	85.7	59.7	67.1	73.1	70.4	72.8	66.3	69.3	68.1	70.2	72.1	78.3	80.4	72.5	76.8	74.2	71.5	71.7	69.4	68.1	64.6	63.3	60.9	60.5	53.9	52.9	48.9	46.8	43.5	37.4
CA2	82.5	56.1	85.7	59.7	67.1	73.1	70.4	72.8	66.3	69.3	68.1	70.2	72.1	78.3	80.4	72.5	76.8	74.2	71.5	71.7	69.4	68.1	64.6	63.3	60.9	60.5	53.9	52.9	48.9	46.8	43.5	37.4
CA3	82.5	56.1	85.7	59.7	67.1	73.1	70.4	72.8	66.3	69.3	68.1	70.2	72.1	78.3	80.4	72.5	76.8	74.2	71.5	71.7	69.4	68.1	64.6	63.3	60.9	60.5	53.9	52.9	48.9	46.8	43.5	37.4
CA4	82.5	56.1	85.7	59.7	67.1	73.1	70.4	72.8	66.3	69.3	68.1	70.2	72.1	78.3	80.4	72.5	76.8	74.2	71.5	71.7	69.4	68.1	64.6	63.3	60.9	60.5	53.9	52.9	48.9	46.8	43.5	37.4
CB1	78.1	54.4	74.9	56.6	65.1	68.0	67.0	71.4	69.6	74.0	72.2	74.8	72.2	72.8	68.8	68.3	72.4	70.1	69.6	68.1	66.9	63.5	62.2	58.6	54.3	50.5	47.6	44.9	42.2	38.4	34.8	31.6
CB2	78.1	54.4	74.9	56.6	65.1	68.0	67.0	71.4	69.6	74.0	72.2	74.8	72.2	72.8	68.8	68.3	72.4	70.1	69.6	68.1	66.9	63.5	62.2	58.6	54.3	50.5	47.6	44.9	42.2	38.4	34.8	31.6
CC1	86.5	55.6	59.2	59.5	62.4	66.7	68.6	68.8	71.6	70.8	70.4	70.0	73.7	74.1	77.3	77.7	77.8	79.3	82.4	77.0	70.6	70.2	67.2	63.1	62.3	62.9	59.4	59.0	59.5	56.1	51.1	42.9
CC2	86.5	55.6	59.2	59.5	62.4	66.7	68.6	68.8	71.6	70.8	70.4	70.0	73.7	74.1	77.3	77.7	77.8	79.3	82.4	77.0	70.6	70.2	67.2	63.1	62.3	62.9	59.4	59.0	59.5	56.1	51.1	42.9
CN1	81.1	62.3	70.3	72.8	74.9	76.8	79.7	80.8	78.8	80.3	79.6	73.6	74.9	76.2	69.9	72.2	73.0	73.9	71.6	71.6	71.1	66.5	64.2	61.8	57.5	54.3	52.2	47.4	44.0	41.3	38.2	36.0
CN2	81.1	62.3	70.3	72.8	74.9	76.8	79.7	80.8	78.8	80.3	79.6	73.6	74.9	76.2	69.9	72.2	73.0	73.9	71.6	71.6	71.1	66.5	64.2	61.8	57.5	54.3	52.2	47.4	44.0	41.3	38.2	36.0

ตารางที่ ข.13 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 13

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	82.8	62.6	68.9	71.4	76.0	77.4	77.8	74.4	82.7	73.6	70.7	73.3	71.1	70.6	77.0	72.1	74.4	73.4	69.7	70.8	65.6	62.7	60.3	57.5	54.7	52.3	49.6	46.7	46.0	40.7	35.4	30.5
TA3	85.5	69.9	70.7	70.2	73.5	77.5	83.4	77.7	79.5	76.5	78.9	76.6	73.6	78.6	76.6	78.3	78.5	77.7	76.8	76.4	72.3	71.2	69.4	64.0	61.3	58.9	56.2	52.5	50.1	47.7	41.9	37.1
SA	81.4	63.5	65.8	69.4	70.6	76.0	77.2	74.8	73.3	72.4	71.4	72.9	70.8	69.5	78.9	77.8	80.1	71.5	67.8	67.5	63.2	61.3	59.5	56.2	53.8	51.2	48.0	45.0	45.1	40.4	34.7	29.3
MA	83.1	71.8	72.3	81.9	78.1	79.8	75.1	74.5	77.4	74.0	76.4	79.1	77.1	75.5	75.7	76.6	74.8	75.6	74.4	73.4	69.2	69.9	67.7	64.9	62.1	58.9	58.9	56.1	54.1	49.4	44.6	42.6
TB	83.6	68.6	67.1	70.7	73.3	77.9	82.4	81.5	81.0	77.8	79.9	79.5	76.7	74.0	77.7	76.1	75.7	76.5	74.8	75.5	69.6	66.6	67.1	64.7	59.4	56.9	53.9	52.6	51.7	47.4	42.5	39.2
SB	81.9	62.6	67.1	67.9	81.6	75.3	76.2	73.5	72.4	73.3	71.0	73.3	71.5	70.0	72.5	71.4	77.9	75.4	69.2	70.9	65.0	62.5	59.6	57.5	54.7	52.2	49.2	45.9	45.4	40.6	35.0	30.3
MB	83.3	76.2	76.2	77.1	81.2	79.8	81.4	79.5	82.3	76.1	78.1	76.4	78.5	75.1	77.2	75.3	74.2	74.5	74.2	74.8	69.9	69.8	68.7	64.7	64.6	60.6	59.6	58.4	55.4	51.5	48.9	45.4
TC	84.4	74.9	69.7	72.6	75.6	78.4	79.8	80.0	79.1	76.4	75.5	76.0	75.6	77.9	84.5	78.5	74.5	75.8	74.9	73.4	67.8	65.1	63.9	60.3	57.9	54.6	52.5	51.8	49.2	45.7	41.4	35.6
SC	80	64.4	64.2	66.9	72.8	80.7	71.8	73.2	70.2	72.0	69.7	69.0	70.3	69.7	75.9	69.1	72.5	71.2	68.4	68.5	63.8	61.5	59.3	56.4	53.7	51.0	48.0	45.6	44.6	39.8	33.5	27.6
MC	90	60.4	65.4	65.2	64.1	68.8	75.1	73.8	82.0	88.2	80.5	76.1	76.2	75.4	76.6	73.8	75.3	74.0	82.1	73.2	74.7	73.0	65.9	62.6	59.7	57.2	54.1	51.1	48.8	45.1	43.2	39.1
TN	83.9	64.3	66.7	70.6	77.5	75.6	76.9	75.5	73.6	73.6	71.5	72.2	72.0	79.8	82.6	78.7	75.5	73.2	68.7	70.4	65.4	62.7	60.6	58.1	55.1	53.4	50.5	49.4	48.4	44.0	38.5	32.6
SN	82.4	64.0	66.5	65.4	77.4	74.5	76.6	72.8	73.5	75.5	78.3	80.6	77.6	72.9	70.2	72.7	77.0	72.2	70.1	71.6	65.2	62.8	60.5	57.1	54.5	52.7	49.6	46.9	45.9	41.1	36.0	30.9
MN	82.9	61.2	66.9	66.4	71.5	74.5	77.2	81.6	72.9	70.3	70.9	70.5	71.2	70.0	76.6	70.2	77.8	76.9	68.2	69.6	65.1	63.7	60.4	56.9	54.5	51.8	48.9	45.5	44.4	39.2	34.0	29.4

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	84.3	56.9	82.0	59.3	63.0	70.5	69.5	79.8	75.8	77.2	74.0	71.9	75.9	77.9	76.7	76.1	77.8	74.4	76.0	77.2	71.5	69.9	67.4	64.8	64.2	57.8	56.3	57.5	57.0	51.5	47.1	45.4
CA2	84.3	56.9	82.0	59.3	63.0	70.5	69.5	79.8	75.8	77.2	74.0	71.9	75.9	77.9	76.7	76.1	77.8	74.4	76.0	77.2	71.5	69.9	67.4	64.8	64.2	57.8	56.3	57.5	57.0	51.5	47.1	45.4
CA3	84.3	56.9	82.0	59.3	63.0	70.5	69.5	79.8	75.8	77.2	74.0	71.9	75.9	77.9	76.7	76.1	77.8	74.4	76.0	77.2	71.5	69.9	67.4	64.8	64.2	57.8	56.3	57.5	57.0	51.5	47.1	45.4
CA4	84.3	56.9	82.0	59.3	63.0	70.5	69.5	79.8	75.8	77.2	74.0	71.9	75.9	77.9	76.7	76.1	77.8	74.4	76.0	77.2	71.5	69.9	67.4	64.8	64.2	57.8	56.3	57.5	57.0	51.5	47.1	45.4
CB1	83.1	53.3	85.9	58.3	66.1	76.9	69.7	76.2	71.0	73.2	69.5	71.4	73.5	78.2	81.0	73.1	76.6	74.7	72.1	72.3	70.6	68.5	66.6	64.8	61.3	61.6	54.6	55.4	49.9	47.3	43.8	37.2
CB2	83.1	53.3	85.9	58.3	66.1	76.9	69.7	76.2	71.0	73.2	69.5	71.4	73.5	78.2	81.0	73.1	76.6	74.7	72.1	72.3	70.6	68.5	66.6	64.8	61.3	61.6	54.6	55.4	49.9	47.3	43.8	37.2
CC1	79.8	67.1	67.9	64.0	65.7	75.1	74.4	77.8	72.0	70.5	67.1	67.6	68.1	68.4	71.3	72.4	72.1	75.0	74.3	67.3	64.7	62.9	59.9	56.7	56.1	56.6	54.5	54.0	53.6	48.4	43.0	33.5
CC2	79.8	67.1	67.9	64.0	65.7	75.1	74.4	77.8	72.0	70.5	67.1	67.6	68.1	68.4	71.3	72.4	72.1	75.0	74.3	67.3	64.7	62.9	59.9	56.7	56.1	56.6	54.5	54.0	53.6	48.4	43.0	33.5
CN1	80.8	57.9	73.8	70.8	71.1	77.5	80.9	78.6	79.5	79.8	80.4	72.1	76.2	75.7	70.2	72.3	72.0	73.5	71.2	71.4	70.5	66.6	63.9	61.5	57.4	54.1	51.6	46.9	43.6	40.7	37.3	35.0
CN2	80.8	57.9	73.8	70.8	71.1	77.5	80.9	78.6	79.5	79.8	80.4	72.1	76.2	75.7	70.2	72.3	72.0	73.5	71.2	71.4	70.5	66.6	63.9	61.5	57.4	54.1	51.6	46.9	43.6	40.7	37.3	35.0

ตารางที่ ข.14 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 14

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	86.7	51.7	73.7	64.9	81.3	80.7	77.6	74.0	76.8	71.5	73.3	69.0	74.8	76.0	76.2	77.3	72.7	66.0	76.5	78.6	73.3	72.7	70.5	69.5	67.5	63.0	60.2	61.2	63.2	60.4	55.3	48.3
TA3	88.4	60.0	75.6	71.8	71.9	70.1	72.9	81.6	83.5	80.6	74.8	72.1	75.0	77.4	77.1	76.4	76.8	78.6	80.6	80.1	75.9	72.6	70.9	70.2	69.0	65.7	65.0	61.4	60.3	60.1	57.4	52.1
SA	84.8	55.3	59.1	60.0	66.2	68.0	67.3	74.4	75.4	75.9	73.7	74.2	75.9	77.1	77.5	80.8	76.9	76.0	78.2	77.1	71.6	69.4	68.0	65.3	62.6	60.3	57.5	54.7	54.5	51.5	48.4	43.4
MA	80.3	63.1	77.0	75.5	74.2	75.2	75.1	73.6	76.0	79.3	69.8	72.5	74.1	73.4	74.9	72.7	73.4	72.4	72.3	71.6	67.5	64.6	62.0	59.4	56.6	53.8	51.0	49.4	47.0	43.2	38.0	31.7
TB	82.9	64.8	74.6	73.3	78.7	78.5	79.4	76.2	79.3	77.4	80.2	81.1	81.9	78.2	77.8	74.2	76.2	75.7	72.5	69.3	70.2	66.7	64.1	61.7	58.4	55.0	51.4	49.7	46.0	48.8	45.9	42.2
SB	77.6	52.9	64.5	63.4	68.7	66.9	68.9	73.2	68.8	70.7	66.5	67.2	67.6	68.3	69.1	72.3	68.9	68.1	68.9	68.9	67.9	65.5	62.0	59.4	56.6	54.6	51.2	52.1	51.1	49.2	52.7	41.1
MB	79.4	60.1	72.6	75.0	73.2	75.0	76.6	78.0	76.5	72.2	70.5	74.0	74.0	72.7	72.5	71.9	72.9	71.0	71.5	70.7	65.8	63.2	60.9	58.2	55.6	52.1	49.3	48.3	46.1	42.4	37.1	30.2
TC	83.5	64.8	74.6	73.3	78.7	78.5	79.4	79.6	79.3	77.4	80.2	81.6	82.9	78.2	77.8	74.2	76.2	75.7	72.5	69.3	70.2	66.7	64.1	61.7	58.4	55.0	51.4	49.7	46.0	48.8	45.9	42.2
SC	78.2	60.8	60.7	62.7	76.5	72.7	68.6	69.2	66.6	69.1	67.2	66.3	66.0	67.3	70.4	74.0	69.2	67.8	69.4	69.5	68.3	65.9	62.5	59.5	57.4	55.4	51.7	52.7	51.6	49.6	54.3	41.8
MC	76.2	68.5	68.9	66.7	68.0	69.3	67.5	72.8	71.6	66.8	67.5	66.1	68.0	66.7	67.0	68.0	67.8	66.6	67.6	66.8	66.0	64.4	61.8	59.0	56.5	55.0	51.0	52.4	51.2	49.7	52.6	41.8
TN	83.5	71.1	79.7	82.7	78.9	78.5	72.9	77.4	75.4	77.6	76.5	84.1	78.7	78.8	74.8	77.1	76.0	73.5	70.1	70.6	66.6	63.9	61.5	58.5	55.0	51.8	48.8	45.8	49.8	46.4	40.6	
SN	80.4	60.8	69.4	74.3	79.2	75.1	79.6	78.1	75.9	74.6	71.3	74.4	72.8	73.0	71.8	73.0	73.9	72.2	73.4	71.0	67.4	64.1	61.6	58.7	56.0	53.1	49.9	48.8	46.2	42.7	37.3	30.1
MN	81.5	68.2	71.0	73.2	77.1	80.9	78.6	80.1	81.5	74.6	77.2	75.5	78.0	77.1	75.6	72.8	75.0	74.3	71.1	68.2	69.0	65.2	63.0	60.6	57.5	54.2	51.0	48.6	45.4	45.1	41.0	35.5

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	84.0	54.3	82.3	58.3	61.6	65.3	72.0	79.3	78.0	76.1	75.8	71.4	75.7	77.0	76.5	76.7	78.1	74.3	75.1	77.1	71.0	70.2	67.1	64.6	63.9	57.3	55.2	57.0	56.6	51.4	47.5	45.2
CA2	84.0	54.3	82.3	58.3	61.6	65.3	72.0	79.3	78.0	76.1	75.8	71.4	75.7	77.0	76.5	76.7	78.1	74.3	75.1	77.1	71.0	70.2	67.1	64.6	63.9	57.3	55.2	57.0	56.6	51.4	47.5	45.2
CA3	84.0	54.3	82.3	58.3	61.6	65.3	72.0	79.3	78.0	76.1	75.8	71.4	75.7	77.0	76.5	76.7	78.1	74.3	75.1	77.1	71.0	70.2	67.1	64.6	63.9	57.3	55.2	57.0	56.6	51.4	47.5	45.2
CA4	84.0	54.3	82.3	58.3	61.6	65.3	72.0	79.3	78.0	76.1	75.8	71.4	75.7	77.0	76.5	76.7	78.1	74.3	75.1	77.1	71.0	70.2	67.1	64.6	63.9	57.3	55.2	57.0	56.6	51.4	47.5	45.2
CB1	87.3	68.3	63.9	64.6	64.3	70.3	70.5	69.2	70.3	78.4	75.0	76.3	74.4	74.1	77.4	83.5	83.0	80.2	77.7	77.2	73.9	71.6	65.1	63.0	62.6	60.3	57.5	57.6	57.5	52.7	46.6	39.1
CB2	87.3	68.3	63.9	64.6	64.3	70.3	70.5	69.2	70.3	78.4	75.0	76.3	74.4	74.1	77.4	83.5	83.0	80.2	77.7	77.2	73.9	71.6	65.1	63.0	62.6	60.3	57.5	57.6	57.5	52.7	46.6	39.1
CC1	78.1	71.4	76.1	66.8	65.9	77.4	65.6	69.9	74.6	68.8	68.5	67.4	65.4	71.6	70.7	70.6	70.6	72.4	71.6	66.6	63.8	62.1	60.5	58.2	56.1	52.9	49.3	47.2	44.1	40.5	36.8	33.1
CC2	78.1	71.4	76.1	66.8	65.9	77.4	65.6	69.9	74.6	68.8	68.5	67.4	65.4	71.6	70.7	70.6	70.6	72.4	71.6	66.6	63.8	62.1	60.5	58.2	56.1	52.9	49.3	47.2	44.1	40.5	36.8	33.1
CN1	79.3	61.1	68.0	65.9	67.2	71.4	74.5	81.2	82.5	80.9	76.0	72.7	71.0	69.2	68.9	66.2	70.6	69.9	73.5	69.4	64.9	69.1	62.7	60.1	54.0	51.0	51.6	49.5	51.4	46.5	40.3	32.5
CN2	79.3	61.1	68.0	65.9	67.2	71.4	74.5	81.2	82.5	80.9	76.0	72.7	71.0	69.2	68.9	66.2	70.6	69.9	73.5	69.4	64.9	69.1	62.7	60.1	54.0	51.0	51.6	49.5	51.4	46.5	40.3	32.5

ตารางที่ ข.16 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 16

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																							
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
TA2	85.5	60.9	70.3	65.4	66.2	79.6	79.7	82.2	83.2	82.7	82.8	74.8	79.8	80.4	76.9	77.0	77.9	75.5	78.1	77.5	74.8	67.9	64.9	62.0	58.3
TA3	84.8	60.5	73.1	73.1	67.7	72.4	77.1	80.5	81.6	83.3	83.4	74.1	79.1	79.8	77.1	75.5	77.1	75.1	77.8	76.5	74.5	66.8	64.2	61.2	57.2
SA	79.1	58.0	55.2	64.3	61.2	64.5	69.7	73.5	74.4	79.1	75.2	76.4	77.6	77.1	69.7	70.1	72.4	67.5	68.4	71.1	66.9	63.8	59.3	57.9	53.1
MA	92	60.1	65.6	65.9	64.0	68.6	72.7	73.7	90.7	75.8	79.1	71.2	77.9	74.6	79.4	71.1	77.2	75.1	78.4	80.6	74.6	71.7	65.2	62.2	59.2
TB	83.5	67.5	67.7	79.9	81.0	79.0	73.7	74.4	76.1	78.3	74.8	76.6	73.7	79.0	79.5	77.3	77.9	76.2	73.7	74.8	69.5	67.8	65.7	63.7	60.2
SB	81.5	56.3	82.0	61.4	60.7	70.2	68.9	74.5	70.5	73.7	73.0	67.4	70.4	72.2	72.9	70.6	73.8	72.2	72.9	75.3	69.9	69.3	65.6	63.7	61.6
MB	78.7	58.0	60.1	59.7	76.5	77.8	75.4	75.3	76.0	76.3	74.6	70.4	70.4	72.8	67.6	67.0	68.7	67.6	67.1	69.8	67.1	64.3	60.1	59.6	54.7
TC	79.6	60.0	63.7	61.2	67.3	68.0	71.1	80.3	79.6	76.2	76.3	79.2	78.9	77.1	70.1	70.0	72.8	68.4	68.5	70.4	67.4	64.1	59.2	58.0	53.4
SC	81.9	64.1	70.6	65.6	62.9	75.2	78.4	77.5	75.5	73.5	69.0	68.5	71.2	72.3	72.4	71.1	74.5	72.8	73.3	76.1	69.8	69.5	65.5	63.4	61.6
MC	84.5	60.5	73.1	73.1	67.7	72.4	77.1	80.5	81.6	83.3	83.4	74.1	79.1	79.8	77.1	75.5	77.1	75.1	77.8	76.5	74.5	66.8	64.2	61.2	57.2
TN	85.2	60.9	81.0	80.6	82.9	84.2	84.4	75.4	67.5	66.1	74.1	74.4	79.4	79.8	77.9	76.8	77.6	75.2	77.3	77.5	75.2	67.5	64.6	61.4	57.8
SN	79.2	64.1	61.3	63.6	60.5	64.5	71.0	78.1	79.5	78.9	75.7	77.3	78.2	75.6	69.1	70.1	72.7	67.9	68.4	70.4	66.8	64.0	59.0	57.5	52.9
MN	85.5	56.9	73.5	72.7	69.5	78.2	77.9	80.8	81.9	84.5	83.6	74.5	79.5	81.0	78.5	77.0	78.0	75.6	77.7	77.4	74.4	68.0	64.7	62.1	59.0

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	84.4	61.1	78.7	58.8	60.1	74.6	67.1	78.9	75.9	77.4	76.0	72.5	76.0	76.4	76.6	76.9	78.6	74.9	75.5	77.1	71.2	70.4	67.9	65.2	64.5	57.8	56.1	57.8	57.5	52.4	47.7	45.9
CA2	84.4	61.1	78.7	58.8	60.1	74.6	67.1	78.9	75.9	77.4	76.0	72.5	76.0	76.4	76.6	76.9	78.6	74.9	75.5	77.1	71.2	70.4	67.9	65.2	64.5	57.8	56.1	57.8	57.5	52.4	47.7	45.9
CA3	84.4	61.1	78.7	58.8	60.1	74.6	67.1	78.9	75.9	77.4	76.0	72.5	76.0	76.4	76.6	76.9	78.6	74.9	75.5	77.1	71.2	70.4	67.9	65.2	64.5	57.8	56.1	57.8	57.5	52.4	47.7	45.9
CA4	84.4	61.1	78.7	58.8	60.1	74.6	67.1	78.9	75.9	77.4	76.0	72.5	76.0	76.4	76.6	76.9	78.6	74.9	75.5	77.1	71.2	70.4	67.9	65.2	64.5	57.8	56.1	57.8	57.5	52.4	47.7	45.9
CB1	78.3	55.5	75.2	57.7	61.3	67.1	64.1	73.6	74.5	74.5	71.8	73.7	73.2	74.2	69.4	67.6	71.8	69.6	70.3	67.6	66.7	64.1	61.5	58.2	54.2	50.4	47.6	44.8	42.1	38.3	34.5	31.5
CB2	78.3	55.5	75.2	57.7	61.3	67.1	64.1	73.6	74.5	74.5	71.8	73.7	73.2	74.2	69.4	67.6	71.8	69.6	70.3	67.6	66.7	64.1	61.5	58.2	54.2	50.4	47.6	44.8	42.1	38.3	34.5	31.5
CC1	87.1	52.7	57.9	59.5	62.6	70.1	67.0	68.7	71.8	74.0	73.9	78.8	77.8	74.1	78.6	83.6	82.1	79.3	77.7	77.4	73.2	71.5	65.2	63.1	63.1	60.9	57.6	57.9	58.3	53.3	47.2	40.1
CC2	87.1	52.7	57.9	59.5	62.6	70.1	67.0	68.7	71.8	74.0	73.9	78.8	77.8	74.1	78.6	83.6	82.1	79.3	77.7	77.4	73.2	71.5	65.2	63.1	63.1	60.9	57.6	57.9	58.3	53.3	47.2	40.1
CN1	81.0	55.3	68.3	68.6	73.0	77.1	80.4	78.6	77.1	79.2	79.3	72.5	75.3	75.5	70.0	71.7	72.7	73.2	71.8	71.7	71.6	66.6	64.0	62.3	58.2	54.6	52.6	47.7	44.6	41.5	38.2	35.6
CN2	81.0	55.3	68.3	68.6	73.0	77.1	80.4	78.6	77.1	79.2	79.3	72.5	75.3	75.5	70.0	71.7	72.7	73.2	71.8	71.7	71.6	66.6	64.0	62.3	58.2	54.6	52.6	47.7	44.6	41.5	38.2	35.6

ตารางที่ ข.17 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 17

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																							
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
TA2	85.5	59.2	67.8	66.6	68.4	80.6	73.4	79.0	76.3	77.1	78.3	77.6	79.2	78.0	75.3	75.1	77.7	79.9	77.3	78.5	71.4	68.3	65.5	63.1	59.9
TA3	84.8	59.2	79.9	77.4	80.7	75.2	74.8	71.7	71.5	69.7	70.8	73.5	74.2	74.2	77.4	77.2	72.5	67.8	66.9	67.1	68.5	68.2	64.8	63.5	61.3
SA	82.8	65.2	68.0	69.7	73.1	78.6	77.1	77.2	80.3	81.1	80.1	75.5	76.2	72.1	77.4	79.2	73.2	73.2	71.8	69.2	65.1	62.3	59.9	57.3	55.3
MA	80.2	61.0	67.7	70.8	73.8	76.7	77.2	75.4	80.3	75.7	75.4	76.5	75.8	72.7	75.0	75.3	71.3	73.2	73.2	67.1	65.1	62.4	58.7	57.4	54.9
TB	83.1	61.5	71.2	68.9	70.4	79.6	74.9	76.5	77.0	75.5	73.1	76.7	75.4	79.7	81.7	80.8	73.0	73.9	71.2	68.4	65.5	62.8	59.5	57.7	56.5
SB	78.4	66.5	61.3	75.9	76.8	78.0	77.3	77.7	78.0	79.1	74.2	70.2	70.2	69.6	69.3	70.5	69.7	70.3	69.6	64.8	64.7	61.0	58.9	56.0	53.9
MB	82.3	67.6	68.6	71.6	71.9	81.2	80.2	80.4	76.7	77.1	75.8	75.4	71.6	77.2	77.9	73.3	73.6	71.7	68.9	65.1	62.5	60.3	56.9	55.1	56.4
TC	80.5	64.1	67.0	75.5	75.1	79.5	77.1	80.1	79.1	77.5	78.9	75.6	73.8	75.2	75.5	76.3	71.9	73.9	71.6	67.1	64.6	63.7	59.6	57.4	55.1
SC	81.6	67.1	70.6	77.9	80.5	76.9	73.0	70.2	74.6	79.1	78.4	77.1	75.5	73.5	79.9	71.8	68.5	69.6	67.9	65.8	62.4	60.0	57.9	56.9	56.0
MC	83.4	61.2	65.2	71.7	69.9	82.4	82.1	82.3	78.9	74.7	77.8	77.5	76.2	71.8	76.1	78.7	72.7	74.0	70.5	68.9	65.5	62.7	59.6	58.0	56.5
TN	86.3	56.6	67.1	64.9	67.6	74.2	79.7	79.2	78.0	77.3	80.4	82.7	80.1	76.1	75.4	78.7	79.3	77.0	78.6	71.2	68.3	65.9	63.6	59.8	57.4
SN	82.3	70.6	73.9	74.4	74.2	78.9	75.4	76.6	79.8	76.7	78.8	77.4	75.8	72.0	80.5	81.4	73.1	72.7	71.9	68.8	65.0	62.6	60.1	58.0	56.1
MN	85.5	59.5	65.8	81.5	80.2	79.2	79.7	79.0	79.2	78.5	79.4	73.2	75.8	74.6	78.1	79.7	77.1	77.8	71.3	67.9	69.6	68.5	65.9	63.3	60.5

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																							
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
CA1	76.1	53.3	75.0	55.2	63.9	66.7	64.8	69.9	67.6	69.5	69.4	75.1	72.0	73.5	67.2	67.0	71.0	69.4	68.4	66.9	65.2	62.2	61.5	57.9	54.4
CA2	76.1	53.3	75.0	55.2	63.9	66.7	64.8	69.9	67.6	69.5	69.4	75.1	72.0	73.5	67.2	67.0	71.0	69.4	68.4	66.9	65.2	62.2	61.5	57.9	54.4
CA3	76.1	53.3	75.0	55.2	63.9	66.7	64.8	69.9	67.6	69.5	69.4	75.1	72.0	73.5	67.2	67.0	71.0	69.4	68.4	66.9	65.2	62.2	61.5	57.9	54.4
CA4	76.1	53.3	75.0	55.2	63.9	66.7	64.8	69.9	67.6	69.5	69.4	75.1	72.0	73.5	67.2	67.0	71.0	69.4	68.4	66.9	65.2	62.2	61.5	57.9	54.4
CB1	86.9	54.1	56.6	62.7	71.3	73.1	69.1	69.7	67.4	71.4	72.8	78.3	78.5	73.8	79.1	82.7	83.0	80.5	77.5	77.3	73.0	71.6	65.5	63.0	62.8
CB2	86.9	54.1	56.6	62.7	71.3	73.1	69.1	69.7	67.4	71.4	72.8	78.3	78.5	73.8	79.1	82.7	83.0	80.5	77.5	77.3	73.0	71.6	65.5	63.0	62.8
CC1	81.1	55.1	60.5	61.4	69.8	64.3	65.6	74.8	72.0	70.5	67.9	70.4	70.2	71.3	68.4	73.6	73.9	74.8	75.4	71.6	66.2	67.5	61.8	58.5	58.2
CC2	81.1	55.1	60.5	61.4	69.8	64.3	65.6	74.8	72.0	70.5	67.9	70.4	70.2	71.3	68.4	73.6	73.9	74.8	75.4	71.6	66.2	67.5	61.8	58.5	58.2
CN1	74.9	65.6	77.9	64.4	71.3	78.5	70.6	78.0	76.5	78.8	79.2	72.2	74.0	68.9	64.3	62.7	64.8	64.3	63.4	66.3	59.1	61.8	58.9	57.9	53.6
CN2	74.9	65.6	77.9	64.4	71.3	78.5	70.6	78.0	76.5	78.8	79.2	72.2	74.0	68.9	64.3	62.7	64.8	64.3	63.4	66.3	59.1	61.8	58.9	57.9	53.6

ตารางที่ ข.18 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 18

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	78.7	56.6	63.9	71.2	69.3	73.6	74.0	78.2	76.4	77.6	75.6	75.9	74.9	70.8	68.3	65.0	68.9	68.5	70.5	68.5	64.7	67.9	64.6	61.8	59.4	55.6	52.4	51.2	50.5	45.1	42.9	36.5
TA3	80	68.1	68.5	71.1	71.5	76.4	75.7	79.0	79.6	74.2	76.6	76.5	73.0	74.3	73.8	75.5	71.5	73.3	71.9	66.6	64.5	63.5	59.1	56.8	54.8	54.6	51.5	45.4	45.8	39.7	32.2	26.3
SA	83.6	74.9	72.7	75.5	71.2	74.5	76.2	79.7	79.6	81.9	80.8	70.1	73.6	71.9	74.6	75.7	73.6	77.0	74.3	68.3	67.0	63.9	59.7	58.1	56.2	53.3	49.8	46.2	42.0	37.8	35.0	32.1
MA	78.4	65.2	82.9	66.0	64.9	73.9	73.8	75.0	72.3	75.7	76.9	77.7	74.2	78.2	69.5	65.0	69.1	68.7	69.1	68.1	64.5	67.3	64.7	61.3	59.5	54.9	51.2	49.2	47.7	42.9	39.5	33.8
TB	83.9	68.5	81.6	77.6	69.8	74.9	77.4	78.3	77.7	76.2	73.9	70.5	73.9	71.2	74.2	76.5	73.9	72.1	74.8	68.0	67.5	64.6	60.4	58.5	56.5	53.2	49.6	47.2	42.3	37.9	35.1	32.1
SB	82.5	65.2	74.0	75.8	79.2	81.6	80.2	79.7	78.7	76.9	77.4	77.1	77.8	77.4	76.2	76.6	74.8	74.3	72.1	70.8	69.1	68.0	65.1	61.6	59.6	56.8	54.2	52.1	48.4	43.6	39.6	34.2
MB	77	69.1	78.5	68.2	60.1	69.2	76.2	74.1	72.8	72.0	77.4	70.4	72.8	69.5	68.1	63.6	66.2	67.5	66.7	66.8	62.6	65.2	62.5	60.2	57.8	52.3	49.4	48.1	46.5	41.8	38.3	34.0
TC	80.2	61.5	73.7	71.5	74.0	79.7	75.7	80.9	79.5	78.6	78.8	78.2	78.8	76.0	74.1	73.8	72.7	71.9	69.8	68.9	66.9	64.2	61.9	59.5	56.7	53.6	51.0	48.0	45.1	40.1	36.5	30.5
SC	81.4	64.4	62.7	77.1	80.5	78.7	76.1	76.3	75.0	78.0	76.8	70.7	69.0	73.2	73.3	76.7	75.1	74.6	74.2	68.2	66.7	65.4	61.2	58.4	56.3	53.6	49.9	47.4	42.5	37.9	35.1	32.2
MC	83.6	73.6	76.8	77.0	69.7	74.0	77.0	78.2	76.8	74.0	76.6	78.6	80.9	82.2	74.6	75.7	74.0	71.9	73.9	68.2	67.5	64.1	60.1	58.0	56.1	53.0	49.4	46.5	42.2	38.0	35.2	32.2
TN	85.9	56.2	67.9	65.2	66.7	75.4	78.0	80.4	76.4	77.4	79.8	80.3	83.7	79.3	76.2	75.1	78.1	77.1	77.1	79.0	71.6	68.9	66.0	63.8	59.8	57.9	56.0	50.8	47.9	45.1	42.7	40.2
SN	83.8	75.4	74.0	82.2	81.0	80.7	78.0	75.1	73.5	74.5	76.7	69.6	74.2	72.1	73.9	76.0	74.1	78.8	74.7	68.1	67.5	64.8	60.1	58.4	56.2	53.2	50.0	46.2	42.0	37.8	35.0	32.0
MN	84.5	56.6	68.7	66.7	68.8	78.7	76.5	79.8	78.5	80.6	82.2	73.2	78.1	77.0	75.7	76.0	75.8	79.2	76.2	75.5	71.8	67.7	65.5	62.9	59.7	57.4	55.3	50.7	47.5	44.6	41.7	38.0

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	78.0	56.9	75.2	56.5	60.5	63.7	65.8	70.5	66.1	69.9	76.1	74.8	71.5	71.7	69.4	68.5	72.0	69.8	69.5	67.9	66.9	63.8	61.4	58.1	54.8	50.4	47.9	45.3	42.4	38.7	34.9	31.7
CA2	78.0	56.9	75.2	56.5	60.5	63.7	65.8	70.5	66.1	69.9	76.1	74.8	71.5	71.7	69.4	68.5	72.0	69.8	69.5	67.9	66.9	63.8	61.4	58.1	54.8	50.4	47.9	45.3	42.4	38.7	34.9	31.7
CA3	78.0	56.9	75.2	56.5	60.5	63.7	65.8	70.5	66.1	69.9	76.1	74.8	71.5	71.7	69.4	68.5	72.0	69.8	69.5	67.9	66.9	63.8	61.4	58.1	54.8	50.4	47.9	45.3	42.4	38.7	34.9	31.7
CA4	78.0	56.9	75.2	56.5	60.5	63.7	65.8	70.5	66.1	69.9	76.1	74.8	71.5	71.7	69.4	68.5	72.0	69.8	69.5	67.9	66.9	63.8	61.4	58.1	54.8	50.4	47.9	45.3	42.4	38.7	34.9	31.7
CB1	81.2	59.1	67.3	70.1	73.9	73.4	77.8	78.2	79.6	81.9	80.5	73.7	75.3	76.2	70.2	71.8	72.7	74.1	71.1	71.6	70.6	66.8	64.9	62.7	58.2	54.7	52.4	47.8	44.4	41.4	38.3	35.5
CB2	81.2	59.1	67.3	70.1	73.9	73.4	77.8	78.2	79.6	81.9	80.5	73.7	75.3	76.2	70.2	71.8	72.7	74.1	71.1	71.6	70.6	66.8	64.9	62.7	58.2	54.7	52.4	47.8	44.4	41.4	38.3	35.5
CC1	80.8	61.5	71.4	68.6	70.6	74.8	82.2	78.9	79.1	80.1	80.4	72.2	76.0	76.2	69.9	71.9	71.5	73.0	71.8	71.2	70.4	67.4	64.9	63.1	58.6	55.2	52.7	47.9	44.6	41.5	38.6	35.9
CC2	80.8	61.5	71.4	68.6	70.6	74.8	82.2	78.9	79.1	80.1	80.4	72.2	76.0	76.2	69.9	71.9	71.5	73.0	71.8	71.2	70.4	67.4	64.9	63.1	58.6	55.2	52.7	47.9	44.6	41.5	38.6	35.9
CN1	77.1	65.6	82.2	68.8	67.6	75.6	71.6	79.6	80.1	82.3	77.3	74.8	73.0	72.0	67.9	64.2	67.0	67.7	67.6	67.5	62.4	65.1	62.7	60.0	57.4	52.1	50.8	48.3	50.8	48.9	38.9	38.2
CN2	77.1	65.6	82.2	68.8	67.6	75.6	71.6	79.6	80.1	82.3	77.3	74.8	73.0	72.0	67.9	64.2	67.0	67.7	67.6	67.5	62.4	65.1	62.7	60.0	57.4	52.1	50.8	48.3	50.8	48.9	38.9	38.2

ตารางที่ ข.19 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 19

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	85.5	68.2	74.9	78.7	82.4	83.5	79.4	80.1	78.1	77.2	77.9	79.0	78.5	78.9	77.7	78.5	78.0	78.0	77.0	74.3	78.2	73.1	71.0	67.9	63.6	61.1	58.2	56.1	54.0	51.7	48.1	44.4
TA3	84.8	60.5	73.1	73.1	67.7	72.4	77.1	80.5	81.6	82.3	83.4	74.1	79.1	79.8	77.1	75.5	77.1	75.1	77.8	76.5	74.5	66.8	64.2	61.2	57.2	57.2	54.8	49.5	47.6	44.8	42.1	39.3
SA	84	59.3	68.4	73.4	70.6	73.5	71.5	72.2	78.4	82.9	76.9	70.9	72.5	75.9	75.9	74.1	74.2	81.4	72.4	68.6	68.5	67.1	62.4	59.7	56.6	53.8	49.2	46.2	42.8	39.7	35.4	32.3
MA	79	73.2	75.6	72.9	69.0	70.5	68.6	72.3	70.7	68.8	67.5	66.2	66.9	67.8	70.1	71.8	66.5	64.7	65.0	67.5	64.3	62.3	59.2	56.4	56.6	56.0	53.5	53.5	52.4	46.6	40.7	31.8
TB	84	62.2	67.1	64.0	65.8	64.8	66.1	68.4	73.0	76.2	78.2	81.6	79.1	75.6	75.1	77.2	76.7	75.7	77.2	75.5	70.8	68.6	67.8	64.4	62.1	59.9	57.2	54.3	54.0	50.9	47.2	42.2
SB	86.8	75.1	75.7	83.5	79.8	78.2	76.6	74.1	74.1	77.5	74.7	79.7	78.4	75.4	77.6	79.6	73.5	77.6	76.1	77.9	74.9	71.5	69.0	64.9	62.2	60.2	57.2	54.4	51.9	48.2	44.4	40.1
MB	79.8	67.7	65.2	65.3	64.1	68.0	68.2	73.5	69.9	69.0	74.3	74.7	77.2	68.7	70.8	73.8	72.6	74.0	67.7	67.1	64.9	62.5	60.5	57.5	56.5	56.6	54.2	54.4	53.5	48.1	40.8	31.6
TC	82	60.4	67.7	73.9	72.7	75.6	72.2	80.1	73.6	73.7	74.8	72.4	73.7	74.8	73.8	76.6	73.9	78.3	71.5	68.2	68.8	67.3	61.9	58.9	56.3	53.4	48.7	45.9	42.5	39.2	35.2	32.3
SC	86.3	74.2	77.0	77.9	77.0	81.2	83.1	82.7	85.3	80.6	79.2	79.1	78.3	76.5	78.0	76.6	78.9	76.2	77.1	77.5	74.3	72.2	68.1	65.8	63.3	62.1	59.2	55.5	54.2	50.2	45.4	42.2
MC	84.7	57.9	61.3	76.4	83.3	76.9	67.0	73.6	72.4	77.2	75.0	75.8	76.4	76.8	75.9	77.6	76.6	70.9	69.5	68.8	66.4	65.3	65.8	64.9	61.0	61.5	60.6	57.8	58.0	56.1	56.4	58.2
TN	85.6	61.1	74.4	65.9	69.0	80.8	84.9	83.5	74.8	81.1	79.9	75.1	79.4	79.5	77.9	77.1	78.1	75.8	78.0	77.1	75.1	67.9	65.1	61.9	58.8	58.4	55.8	50.7	48.9	46.4	43.6	40.7
SN	82.5	56.5	72.5	75.9	74.1	74.1	73.6	77.6	79.0	80.9	74.8	71.3	74.4	74.6	73.1	77.4	73.7	74.9	72.0	69.1	69.2	66.9	61.9	59.2	56.5	53.6	48.9	46.4	42.6	39.5	35.5	32.6
MN	80	58.9	59.9	62.7	70.6	77.8	78.7	74.6	73.1	73.9	73.5	74.8	79.3	74.4	73.6	75.1	72.4	73.3	72.6	66.5	64.4	63.1	59.3	57.2	54.9	54.9	51.6	45.8	45.9	39.3	32.5	26.2

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	81.8	57.8	77.6	67.3	68.9	72.6	70.3	76.6	77.1	73.4	75.3	72.1	70.6	71.5	72.4	73.3	77.0	74.5	71.8	74.4	69.4	67.4	64.1	60.1	57.7	53.5	51.3	50.7	50.0	45.5	40.2	35.5
CA2	81.8	57.8	77.6	67.3	68.9	72.6	70.3	76.6	77.1	73.4	75.3	72.1	70.6	71.5	72.4	73.3	77.0	74.5	71.8	74.4	69.4	67.4	64.1	60.1	57.7	53.5	51.3	50.7	50.0	45.5	40.2	35.5
CA3	81.8	57.8	77.6	67.3	68.9	72.6	70.3	76.6	77.1	73.4	75.3	72.1	70.6	71.5	72.4	73.3	77.0	74.5	71.8	74.4	69.4	67.4	64.1	60.1	57.7	53.5	51.3	50.7	50.0	45.5	40.2	35.5
CA4	81.8	57.8	77.6	67.3	68.9	72.6	70.3	76.6	77.1	73.4	75.3	72.1	70.6	71.5	72.4	73.3	77.0	74.5	71.8	74.4	69.4	67.4	64.1	60.1	57.7	53.5	51.3	50.7	50.0	45.5	40.2	35.5
CB1	85.2	60.5	77.2	63.9	65.6	67.8	68.1	71.3	69.8	73.8	70.5	72.4	74.8	74.1	76.3	73.7	80.1	79.0	79.0	75.6	71.9	69.7	66.8	64.7	63.6	60.1	56.0	55.7	53.6	48.8	44.2	37.9
CB2	85.2	60.5	77.2	63.9	65.6	67.8	68.1	71.3	69.8	73.8	70.5	72.4	74.8	74.1	76.3	73.7	80.1	79.0	79.0	75.6	71.9	69.7	66.8	64.7	63.6	60.1	56.0	55.7	53.6	48.8	44.2	37.9
CC1	80.0	70.7	63.9	61.6	63.7	69.0	78.6	70.2	72.4	70.3	68.2	67.8	67.5	69.8	72.4	72.9	73.1	74.2	74.4	68.3	65.1	63.2	61.0	57.6	57.5	57.4	54.6	54.7	54.0	48.3	42.4	33.7
CC2	80.0	70.7	63.9	61.6	63.7	69.0	78.6	70.2	72.4	70.3	68.2	67.8	67.5	69.8	72.4	72.9	73.1	74.2	74.4	68.3	65.1	63.2	61.0	57.6	57.5	57.4	54.6	54.7	54.0	48.3	42.4	33.7
CN1	83.1	64.8	75.9	67.1	62.9	78.4	77.4	79.5	77.0	78.8	76.9	73.1	71.2	76.3	70.4	66.7	70.5	72.2	77.7	74.0	68.1	74.6	68.1	66.8	60.0	58.0	57.7	57.1	60.4	58.1	51.4	43.5
CN2	83.1	64.8	75.9	67.1	62.9	78.4	77.4	79.5	77.0	78.8	76.9	73.1	71.2	76.3	70.4	66.7	70.5	72.2	77.7	74.0	68.1	74.6	68.1	66.8	60.0	58.0	57.7	57.1	60.4	58.1	51.4	43.5

ตารางที่ ข.20 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 20

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	79.8	67.7	65.2	65.3	64.1	73.5	75.2	74.7	69.9	69.0	67.7	68.0	68.2	68.7	70.8	73.8	72.6	74.0	74.3	67.1	64.9	62.5	60.5	57.5	56.5	56.6	54.2	54.4	53.5	48.1	40.8	31.6
TA3	81.3	54.2	60.7	56.9	65.1	68.9	66.1	73.2	71.1	75.5	70.5	68.4	70.8	71.7	69.0	74.4	74.0	74.9	65.6	71.6	66.3	67.6	62.0	58.0	58.0	57.8	54.8	56.1	56.9	53.9	48.0	40.0
SA	81.2	58.3	58.6	55.8	63.4	66.1	65.3	71.4	70.9	69.5	74.5	74.8	75.2	70.3	69.3	74.6	67.2	70.5	70.4	71.4	66.1	67.7	62.1	58.9	58.5	57.7	56.0	56.7	57.6	54.3	48.5	41.8
MA	81	63.7	58.4	54.7	58.8	67.0	67.4	71.3	70.0	73.6	74.6	75.1	70.3	69.9	69.2	73.9	68.4	65.9	70.8	71.0	66.5	68.3	61.6	58.4	57.9	57.4	55.3	56.1	57.0	54.1	47.8	40.5
TB	84.8	69.1	72.1	68.7	69.6	75.4	78.9	81.1	80.8	80.7	83.3	74.9	78.0	79.6	74.1	74.9	75.9	75.8	75.8	76.1	76.1	71.2	68.9	65.5	62.9	59.5	56.3	52.2	48.8	45.3	42.5	39.8
SB	82.9	64.1	67.6	73.0	74.0	75.5	77.4	78.2	77.9	76.3	74.5	75.8	72.5	71.9	77.4	71.3	80.6	75.5	71.8	73.0	67.0	64.4	62.1	59.4	56.3	53.5	51.7	48.6	47.9	43.7	37.2	32.4
MB	79.1	66.0	65.6	63.8	65.7	72.4	76.6	73.6	72.9	69.3	67.2	67.3	68.9	70.0	69.5	71.2	71.6	68.2	68.3	66.6	64.3	62.6	60.2	57.2	56.9	56.8	53.9	53.7	53.1	48.2	42.7	32.6
TC	86.4	53.2	58.6	61.5	62.6	65.8	67.5	74.9	72.0	70.2	70.5	72.1	74.8	75.2	77.1	82.3	78.1	78.5	78.9	76.8	70.1	70.4	67.1	63.0	61.9	62.2	58.4	58.9	59.1	55.7	50.2	42.1
SC	81	63.5	70.5	73.2	74.9	74.5	69.5	66.8	73.7	69.6	69.2	70.7	70.1	71.2	69.3	69.9	67.6	64.4	70.6	70.9	65.8	67.4	63.2	58.3	57.9	57.3	55.1	56.4	57.1	54.2	47.6	39.3
MC	81.1	57.7	59.7	73.9	74.1	75.1	74.8	68.2	70.5	70.4	67.0	69.8	70.2	71.2	69.1	69.5	64.1	67.3	69.0	71.9	66.1	67.4	62.1	58.7	58.6	58.0	55.4	56.4	57.6	54.0	47.5	39.4
TN	86.2	54.3	78.9	82.5	76.9	72.2	70.0	74.5	73.0	71.2	70.9	71.5	75.0	73.6	77.1	78.8	78.6	71.1	70.5	61.5	61.3	62.4	66.6	62.9	62.2	62.6	58.8	59.1	59.1	55.3	51.9	41.7
SN	84.2	69.3	67.2	66.5	67.1	74.9	77.8	79.0	83.3	81.4	80.7	73.5	78.1	79.8	73.6	74.0	75.4	74.4	76.1	75.6	74.8	70.5	68.9	65.5	62.4	58.8	55.4	51.9	48.4	44.9	42.1	39.5
MN	82.7	63.9	68.1	73.5	74.6	76.0	78.2	80.0	77.5	76.1	74.0	75.6	71.6	70.9	75.4	70.9	79.8	76.1	71.5	74.8	66.9	64.9	62.9	60.0	56.6	53.6	52.2	48.4	48.2	43.7	36.8	31.7

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	84.3	56.8	82.0	58.2	61.0	70.9	71.1	82.1	78.5	76.6	75.5	70.3	76.5	76.5	77.2	75.8	78.0	74.4	76.0	77.7	71.6	70.6	67.4	64.5	64.2	57.2	55.5	57.5	57.5	52.1	47.7	45.4
CA2	84.3	56.8	82.0	58.2	61.0	70.9	71.1	82.1	78.5	76.6	75.5	70.3	76.5	76.5	77.2	75.8	78.0	74.4	76.0	77.7	71.6	70.6	67.4	64.5	64.2	57.2	55.5	57.5	57.5	52.1	47.7	45.4
CA3	84.3	56.8	82.0	58.2	61.0	70.9	71.1	82.1	78.5	76.6	75.5	70.3	76.5	76.5	77.2	75.8	78.0	74.4	76.0	77.7	71.6	70.6	67.4	64.5	64.2	57.2	55.5	57.5	57.5	52.1	47.7	45.4
CA4	84.3	56.8	82.0	58.2	61.0	70.9	71.1	82.1	78.5	76.6	75.5	70.3	76.5	76.5	77.2	75.8	78.0	74.4	76.0	77.7	71.6	70.6	67.4	64.5	64.2	57.2	55.5	57.5	57.5	52.1	47.7	45.4
CB1	88.0	68.7	70.5	70.2	65.3	70.0	64.9	68.5	69.3	75.1	73.0	77.4	77.2	74.5	77.9	84.6	83.9	80.8	77.6	77.6	73.6	72.2	65.7	63.0	62.6	60.4	57.3	57.7	58.4	52.8	46.6	40.1
CB2	88.0	68.7	70.5	70.2	65.3	70.0	64.9	68.5	69.3	75.1	73.0	77.4	77.2	74.5	77.9	84.6	83.9	80.8	77.6	77.6	73.6	72.2	65.7	63.0	62.6	60.4	57.3	57.7	58.4	52.8	46.6	40.1
CC1	80.2	68.7	64.5	58.5	68.6	71.3	66.3	70.3	73.2	69.8	67.4	67.9	67.5	69.9	72.5	73.3	73.5	74.5	75.3	67.5	65.9	63.3	60.8	57.4	57.1	57.1	54.1	54.1	53.4	48.5	42.3	32.5
CC2	80.2	68.7	64.5	58.5	68.6	71.3	66.3	70.3	73.2	69.8	67.4	67.9	67.5	69.9	72.5	73.3	73.5	74.5	75.3	67.5	65.9	63.3	60.8	57.4	57.1	57.1	54.1	54.1	53.4	48.5	42.3	32.5
CN1	78.8	63.4	63.1	62.7	67.8	68.3	71.4	77.6	78.0	78.3	76.3	76.8	77.5	75.9	69.3	69.4	72.1	68.0	68.4	70.0	67.0	64.1	59.1	57.6	52.9	49.2	47.8	46.2	45.2	42.5	39.7	34.8
CN2	78.8	63.4	63.1	62.7	67.8	68.3	71.4	77.6	78.0	78.3	76.3	76.8	77.5	75.9	69.3	69.4	72.1	68.0	68.4	70.0	67.0	64.1	59.1	57.6	52.9	49.2	47.8	46.2	45.2	42.5	39.7	34.8

ตารางที่ ข.21 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 21

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 จอทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	79	71.6	69.6	69.1	69.2	69.5	74.4	71.4	72.2	74.8	76.1	73.6	69.2	69.9	68.4	65.7	70.9	69.5	73.1	69.8	64.5	68.3	62.2	60.2	54.4	50.2	51.9	49.3	50.7	45.0	38.7	31.7
TA3	82	67.2	66.6	68.7	74.4	72.2	76.1	76.4	74.5	73.2	68.9	72.8	70.7	83.6	69.1	70.4	73.0	75.3	69.5	68.2	64.6	63.5	60.3	56.9	54.5	52.3	48.7	46.0	45.4	40.3	34.3	29.1
SA	79.1	68.5	73.1	70.7	70.2	71.9	76.4	74.9	72.4	71.6	75.8	72.8	68.9	69.9	67.5	65.2	70.9	69.8	67.2	69.6	64.5	68.7	62.7	60.4	54.2	50.3	51.4	49.5	50.9	45.9	39.8	32.1
MA	79.4	60.0	69.1	66.2	65.7	69.6	75.4	77.7	77.0	78.9	75.9	73.8	68.3	70.0	68.0	66.0	71.4	70.6	73.7	70.7	64.9	68.7	62.8	60.5	54.5	50.3	51.7	50.4	51.8	46.9	41.6	33.2
TB	86	59.4	82.8	82.0	72.7	72.4	76.4	77.6	72.8	77.6	76.9	77.4	70.2	77.8	72.7	75.0	74.8	71.9	70.6	69.8	65.9	71.1	65.9	62.5	59.7	58.3	54.2	50.9	48.4	44.8	43.0	38.5
SB	82.9	68.9	79.9	80.0	74.1	74.8	75.2	73.5	75.7	74.4	78.3	71.1	75.5	75.8	73.8	77.1	74.0	74.1	71.1	68.4	69.5	68.3	62.0	59.7	57.5	53.9	49.0	46.5	42.7	39.6	35.4	32.3
MB	81.5	57.0	58.1	53.4	57.6	67.4	68.7	70.5	74.2	70.6	68.1	69.6	69.5	68.9	69.3	74.6	78.5	74.8	75.6	71.2	66.7	67.4	62.4	58.8	58.9	58.3	55.4	56.5	57.2	53.8	47.5	40.4
TC	83	57.2	66.4	74.4	80.1	74.7	72.7	78.3	79.1	73.4	72.5	71.7	73.4	74.5	73.4	77.0	74.9	74.5	71.4	69.1	69.5	69.0	61.9	59.7	57.3	54.2	49.5	46.5	42.9	39.7	35.6	32.5
SC	80.7	63.5	66.1	69.5	72.9	78.3	78.5	80.9	79.1	77.7	76.7	74.5	71.9	70.3	73.0	75.6	70.5	73.8	75.2	68.6	67.9	63.1	59.1	57.5	54.9	55.1	53.2	47.6	47.5	41.6	34.2	28.3
MC	77.5	69.8	75.1	75.8	73.3	77.3	70.9	70.2	72.7	68.8	66.3	73.3	70.4	73.5	69.0	70.9	69.8	69.2	66.1	64.5	64.7	60.8	58.5	57.6	53.9	52.8	50.3	48.8	45.8	41.5	37.2	36.0
TN	85.8	58.3	71.9	67.7	67.1	74.0	74.9	80.5	85.7	77.2	79.2	74.6	76.6	76.6	77.5	71.0	75.8	72.6	73.8	71.8	72.2	69.6	67.6	62.9	60.0	58.4	55.5	51.5	49.0	45.4	43.4	39.3
SN	84.2	62.2	65.6	65.6	64.7	78.5	70.2	68.5	69.5	70.1	70.6	74.6	76.2	78.1	82.2	76.7	79.0	77.3	76.8	72.6	68.3	68.1	64.6	63.1	61.1	61.1	57.5	57.8	55.0	50.9	43.8	35.1
MN	81.8	61.7	59.1	56.5	59.5	65.4	66.7	71.9	71.5	74.8	75.4	78.8	70.3	70.1	69.5	75.0	71.6	65.2	69.8	71.9	66.6	68.6	62.2	58.7	58.6	58.2	55.3	56.2	57.1	54.2	48.0	39.1

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	76.6	58.6	74.9	66.5	65.0	69.2	69.3	78.9	74.1	73.0	66.6	65.6	69.7	69.7	68.7	71.0	66.7	67.9	71.8	66.0	61.2	62.5	57.2	55.0	53.1	51.2	48.2	46.1	45.0	39.2	35.7	32.2
CA2	76.6	58.6	74.9	66.5	65.0	69.2	69.3	78.9	74.1	73.0	66.6	65.6	69.7	69.7	68.7	71.0	66.7	67.9	71.8	66.0	61.2	62.5	57.2	55.0	53.1	51.2	48.2	46.1	45.0	39.2	35.7	32.2
CA3	76.6	58.6	74.9	66.5	65.0	69.2	69.3	78.9	74.1	73.0	66.6	65.6	69.7	69.7	68.7	71.0	66.7	67.9	71.8	66.0	61.2	62.5	57.2	55.0	53.1	51.2	48.2	46.1	45.0	39.2	35.7	32.2
CA4	76.6	58.6	74.9	66.5	65.0	69.2	69.3	78.9	74.1	73.0	66.6	65.6	69.7	69.7	68.7	71.0	66.7	67.9	71.8	66.0	61.2	62.5	57.2	55.0	53.1	51.2	48.2	46.1	45.0	39.2	35.7	32.2
CB1	80.8	68.0	74.0	64.9	69.2	79.8	72.2	76.6	77.0	74.2	72.6	72.5	71.8	72.1	72.3	71.6	76.2	71.5	71.7	72.6	68.2	67.1	64.3	59.8	57.9	53.0	51.4	50.9	50.1	45.9	41.2	36.0
CB2	80.8	68.0	74.0	64.9	69.2	79.8	72.2	76.6	77.0	74.2	72.6	72.5	71.8	72.1	72.3	71.6	76.2	71.5	71.7	72.6	68.2	67.1	64.3	59.8	57.9	53.0	51.4	50.9	50.1	45.9	41.2	36.0
CC1	79.2	69.2	67.3	64.4	68.1	70.7	68.6	73.3	72.8	68.0	66.6	66.8	67.0	66.5	72.1	71.9	72.5	73.0	73.9	66.6	64.8	61.9	59.7	56.9	56.7	56.1	53.4	53.5	52.8	47.1	40.3	30.8
CC2	79.2	69.2	67.3	64.4	68.1	70.7	68.6	73.3	72.8	68.0	66.6	66.8	67.0	66.5	72.1	71.9	72.5	73.0	73.9	66.6	64.8	61.9	59.7	56.9	56.7	56.1	53.4	53.5	52.8	47.1	40.3	30.8
CN1	84.8	68.6	77.5	72.0	71.9	81.3	75.2	80.1	81.5	78.9	77.2	77.6	79.6	79.4	76.9	74.0	74.2	74.5	78.4	74.4	70.9	75.1	70.3	67.7	63.9	62.2	61.8	60.0	60.9	58.5	53.4	48.2
CN2	84.8	68.6	77.5	72.0	71.9	81.3	75.2	80.1	81.5	78.9	77.2	77.6	79.6	79.4	76.9	74.0	74.2	74.5	78.4	74.4	70.9	75.1	70.3	67.7	63.9	62.2	61.8	60.0	60.9	58.5	53.4	48.2

ตารางที่ ข.23 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 23

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 จอห์นสัน (เดซิเบล)																							
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
TA2	82	60.7	71.7	73.3	72.9	75.0	71.7	79.3	76.6	73.6	75.1	71.6	74.0	74.2	73.7	76.6	73.8	77.1	72.2	68.5	68.7	67.6	62.0	59.1	56.4
TA3	80.1	58.1	71.5	66.5	70.6	73.2	73.8	76.6	78.2	79.2	77.0	71.9	76.1	75.2	69.7	71.6	71.6	72.8	70.6	71.0	69.5	66.2	64.0	61.9	57.4
SA	81.8	57.5	72.0	68.8	72.3	74.7	80.9	76.9	78.9	78.6	80.0	72.5	76.2	74.9	70.4	73.0	72.7	74.1	71.6	72.5	72.7	67.1	64.6	62.5	58.4
MA	78	61.9	65.0	65.6	73.9	72.3	73.7	79.0	71.4	70.7	77.7	73.5	69.5	70.6	69.1	68.6	70.6	67.9	69.6	69.5	64.4	64.3	61.0	58.2	55.7
TB	85.6	72.9	80.4	82.0	85.2	80.0	79.3	78.7	79.2	79.5	76.6	76.4	76.2	78.4	78.6	77.5	77.9	78.7	76.3	75.7	72.3	68.0	65.9	63.1	60.5
SB	86.1	72.6	78.3	79.0	77.9	79.2	80.2	82.6	85.6	81.9	84.3	78.9	80.7	81.5	77.7	75.5	78.2	79.4	76.8	77.1	74.2	71.5	68.3	65.2	62.7
MB	77.3	59.9	61.2	77.4	71.8	74.5	76.5	72.2	70.5	70.4	74.8	71.6	69.5	72.0	68.1	68.5	71.1	66.9	68.9	69.3	62.8	62.7	60.3	57.4	54.1
TC	80.9	52.7	67.6	68.6	70.4	75.3	77.2	78.1	78.3	79.9	80.0	73.4	74.0	73.9	70.1	72.6	72.5	74.3	71.5	71.1	70.2	67.0	64.2	62.3	58.2
SC	81.4	55.4	69.8	72.2	75.9	74.4	79.6	80.6	79.4	79.3	78.4	73.4	74.5	74.2	71.2	73.7	72.5	74.6	71.9	71.2	71.8	66.8	64.3	61.8	57.5
MC	79.4	61.2	64.4	67.8	75.3	74.4	73.0	71.5	71.0	69.7	69.6	70.0	71.0	69.5	79.3	69.3	73.0	71.2	69.1	68.7	64.2	61.7	59.3	56.3	54.1
TN	87.1	68.1	62.5	61.5	64.4	68.5	69.3	66.9	70.3	74.8	74.0	78.7	78.0	73.5	77.8	84.7	82.7	80.1	77.1	77.7	73.4	71.9	65.2	63.0	62.5
SN	82.7	62.1	68.3	70.8	75.5	73.6	77.0	74.3	73.6	74.3	71.7	73.9	71.3	69.1	81.1	71.0	74.9	72.0	68.9	69.4	64.4	61.8	60.1	57.2	54.2
MN	80	58.2	67.0	68.7	72.3	78.0	77.9	76.1	79.3	77.5	77.4	75.4	73.1	72.1	74.0	75.3	72.6	73.4	71.6	66.9	64.6	62.6	58.8	56.6	55.0

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 จอห์นสัน (เดซิเบล)																							
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
CA1	84.7	55.3	81.9	62.9	64	70.5	69.5	80.7	77.2	76	76.5	73.2	76.7	78	78	76.4	78.3	74.6	76.2	78.3	71.5	69.9	66.8	65.1	64.2
CA2	84.7	55.3	81.9	62.9	64	70.5	69.5	80.7	77.2	76	76.5	73.2	76.7	78	78	76.4	78.3	74.6	76.2	78.3	71.5	69.9	66.8	65.1	64.2
CA3	84.7	55.3	81.9	62.9	64	70.5	69.5	80.7	77.2	76	76.5	73.2	76.7	78	78	76.4	78.3	74.6	76.2	78.3	71.5	69.9	66.8	65.1	64.2
CA4	84.7	55.3	81.9	62.9	64	70.5	69.5	80.7	77.2	76	76.5	73.2	76.7	78	78	76.4	78.3	74.6	76.2	78.3	71.5	69.9	66.8	65.1	64.2
CB1	82.2	67.6	86.6	70.4	68.9	76.3	73.6	73	73.6	71.4	69.7	71.1	72.3	77.5	79.8	71	76	73.6	72.3	72.1	69.5	67.7	64.1	61.7	59.6
CB2	82.2	67.6	86.6	70.4	68.9	76.3	73.6	73	73.6	71.4	69.7	71.1	72.3	77.5	79.8	71	76	73.6	72.3	72.1	69.5	67.7	64.1	61.7	59.6
CC1	81.3	56.4	72.3	69.1	70.6	76.9	81.6	79.2	79.3	80.6	78.9	73.9	75.6	75.7	70.1	72.1	72.6	74	71.4	72.3	71.9	67.4	64.8	62.4	58.1
CC2	81.3	56.4	72.3	69.1	70.6	76.9	81.6	79.2	79.3	80.6	78.9	73.9	75.6	75.7	70.1	72.1	72.6	74	71.4	72.3	71.9	67.4	64.8	62.4	58.1
CN1	79.7	67.3	68.3	63.9	63.3	64.6	69.3	76.8	76.7	78.9	76.6	79.9	78.6	77.3	70.9	70.8	73.2	67.8	68.6	70.7	67	64.1	59.3	58	53.4
CN2	79.7	67.3	68.3	63.9	63.3	64.6	69.3	76.8	76.7	78.9	76.6	79.9	78.6	77.3	70.9	70.8	73.2	67.8	68.6	70.7	67	64.1	59.3	58	53.4

ตารางที่ ข.24 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 24

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	85.5	63.5	84.2	62.3	67.1	71.3	68.0	78.9	83.9	75.6	75.7	72.5	76.4	76.8	78.9	78.0	74.9	76.3	77.5	72.1	71.5	69.6	70.2	66.1	63.0	62.1	61.6	61.2	61.5	57.8	57.3	56.8
TA3	84.2	55.1	75.6	59.7	64.1	65.9	82.4	70.2	79.0	66.8	71.7	73.1	75.5	75.8	75.3	74.0	76.7	71.2	73.1	73.2	70.1	70.6	66.1	60.8	62.0	64.1	57.6	59.4	58.1	53.9	50.2	39.8
SA	84.5	66.1	76.4	83.0	76.7	74.6	76.5	69.5	73.7	75.3	70.8	69.0	74.4	76.0	78.5	73.3	63.0	65.1	68.4	69.6	69.7	70.0	65.9	61.1	61.3	63.9	57.2	59.6	57.5	53.7	48.7	38.1
MA	80.9	52.7	67.6	68.6	70.4	75.3	77.2	78.1	78.3	79.9	80.0	73.4	74.0	73.9	70.1	72.6	72.5	74.3	71.5	71.1	70.2	67.0	64.2	62.3	58.2	54.9	52.6	47.8	44.5	41.2	38.2	35.5
TB	81.2	69.9	63.8	64.9	78.5	76.8	75.6	73.3	73.5	71.4	71.5	71.7	71.8	70.0	73.5	75.6	74.9	73.9	71.4	65.3	68.9	66.0	62.4	59.6	56.9	54.6	51.8	47.4	47.4	40.9	33.7	27.6
SB	82.4	52.8	58.3	61.3	64.6	70.7	71.8	80.0	77.9	72.8	73.0	73.0	72.0	70.2	74.8	70.2	75.0	73.5	72.4	74.4	70.2	66.7	62.3	60.1	57.3	54.7	51.8	47.7	47.2	42.3	35.1	29.5
MB	82.3	58.9	57.8	61.6	77.8	79.5	73.3	68.8	71.3	72.1	72.2	72.6	71.6	71.8	74.8	70.7	74.6	73.1	72.7	64.3	69.9	66.3	62.6	60.4	57.9	55.1	52.6	48.2	48.2	41.6	34.9	28.8
TC	80.3	58.9	59.9	62.7	70.6	77.8	78.7	74.6	79.3	73.9	73.5	74.8	73.1	74.4	73.6	75.1	72.4	73.3	72.6	66.5	64.4	63.1	59.3	57.2	54.9	54.9	51.6	45.8	45.9	39.3	32.5	26.2
SC	84.4	57.1	58.1	66.8	68.2	75.6	70.8	74.2	72.2	74.8	76.7	81.5	77.9	75.9	76.9	74.4	71.4	71.1	69.6	73.3	70.4	69.6	65.9	61.1	61.6	64.1	58.5	59.7	57.1	53.6	47.8	38.6
MC	81.1	57.9	58.5	59.7	66.0	70.4	76.0	75.2	72.9	71.5	72.2	72.1	72.3	72.0	73.3	70.5	73.3	73.2	71.9	72.3	67.9	66.2	61.8	59.9	57.2	54.7	51.8	47.6	46.3	41.0	34.4	28.6
TN	83.3	69.7	63.7	70.6	74.1	75.4	74.4	75.5	80.6	81.1	79.1	77.4	76.3	73.2	77.3	74.5	77.6	75.8	73.1	75.8	71.2	67.9	66.0	63.8	60.0	57.5	54.9	50.3	48.9	43.2	37.4	31.2
SN	84.4	58.4	75.3	62.2	65.9	70.0	65.7	72.6	74.5	70.9	70.2	78.1	80.0	77.0	75.5	74.8	76.1	74.1	71.6	73.0	70.2	69.7	66.0	61.2	61.9	63.5	57.2	59.0	56.7	53.6	47.7	38.3
MN	82.2	70.8	71.6	71.0	70.1	74.6	75.1	76.9	80.7	72.1	72.2	72.1	72.2	73.1	78.7	70.9	75.8	74.9	72.3	74.8	69.1	67.1	63.9	61.6	58.5	56.3	53.1	48.5	48.2	41.3	34.4	28.3

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	81.7	63.9	85.9	60.7	65.6	73.2	71.0	72.5	70.7	71.7	69.6	72.8	72.5	77.6	79.0	71.8	74.9	73.4	72.2	71.5	69.3	67.4	64.3	63.0	61.0	58.4	53.7	52.9	49.0	47.2	43.4	37.3
CA2	81.7	63.9	85.9	60.7	65.6	73.2	71.0	72.5	70.7	71.7	69.6	72.8	72.5	77.6	79.0	71.8	74.9	73.4	72.2	71.5	69.3	67.4	64.3	63.0	61.0	58.4	53.7	52.9	49.0	47.2	43.4	37.3
CA3	81.7	63.9	85.9	60.7	65.6	73.2	71.0	72.5	70.7	71.7	69.6	72.8	72.5	77.6	79.0	71.8	74.9	73.4	72.2	71.5	69.3	67.4	64.3	63.0	61.0	58.4	53.7	52.9	49.0	47.2	43.4	37.3
CA4	81.7	63.9	85.9	60.7	65.6	73.2	71.0	72.5	70.7	71.7	69.6	72.8	72.5	77.6	79.0	71.8	74.9	73.4	72.2	71.5	69.3	67.4	64.3	63.0	61.0	58.4	53.7	52.9	49.0	47.2	43.4	37.3
CB1	77.9	65.3	74.1	58.2	60.8	75.9	65.8	72.9	69.1	65.5	69.5	68.4	66.0	70.3	70.0	71.0	70.8	72.3	71.3	66.2	63.3	62.7	60.4	57.9	56.0	52.7	49.1	47.3	44.1	40.3	36.8	33.1
CB2	77.9	65.3	74.1	58.2	60.8	75.9	65.8	72.9	69.1	65.5	69.5	68.4	66.0	70.3	70.0	71.0	70.8	72.3	71.3	66.2	63.3	62.7	60.4	57.9	56.0	52.7	49.1	47.3	44.1	40.3	36.8	33.1
CC1	81.8	55.6	55.9	53.3	60.5	67.3	65.9	69.0	71.5	71.6	67.6	70.8	69.8	70.5	69.4	75.6	75.2	75.8	75.1	72.3	67.2	67.8	62.7	58.9	58.5	58.4	55.6	56.7	57.3	54.8	48.2	39.6
CC2	81.8	55.6	55.9	53.3	60.5	67.3	65.9	69.0	71.5	71.6	67.6	70.8	69.8	70.5	69.4	75.6	75.2	75.8	75.1	72.3	67.2	67.8	62.7	58.9	58.5	58.4	55.6	56.7	57.3	54.8	48.2	39.6
CN1	80.7	51.9	67.7	63.9	65.1	75.8	77.7	76.0	78.3	80.2	73.6	72.5	70.9	66.4	68.6	66.2	69.7	77.0	72.4	68.0	72.0	64.0	67.4	59.8	55.2	53.8	46.4	46.4	44.4	39.5	35.8	32.0
CN2	80.7	51.9	67.7	63.9	65.1	75.8	77.7	76.0	78.3	80.2	73.6	72.5	70.9	66.4	68.6	66.2	69.7	77.0	72.4	68.0	72.0	64.0	67.4	59.8	55.2	53.8	46.4	46.4	44.4	39.5	35.8	32.0

ตารางที่ ข.26 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 26

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																							
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
TA2	80.5	74.6	72.2	74.9	74.5	78.2	77.4	76.6	80.0	74.1	71.4	74.6	76.3	74.8	77.7	73.6	71.7	72.4	72.4	71.3	67.2	66.3	65.2	61.2	58.5
TA3	84.8	64.1	65.9	61.5	66.0	66.9	81.1	72.5	71.0	73.2	74.7	74.4	72.8	75.2	75.5	78.5	75.7	78.5	76.6	71.2	68.7	68.2	66.9	64.4	62.6
SA	80.8	59.2	67.2	76.6	73.0	75.1	77.9	77.3	80.5	78.1	77.0	70.6	76.4	71.5	72.5	76.2	73.8	73.7	74.2	68.0	67.0	64.4	60.2	58.3	56.2
MA	82.9	71.5	74.3	68.2	63.3	77.6	72.8	77.4	75.6	72.9	71.9	73.3	82.3	80.6	69.8	66.1	71.4	73.1	77.3	74.2	68.8	74.6	68.1	66.6	60.5
TB	84.4	57.3	65.2	60.5	64.1	69.4	68.0	73.3	73.9	82.2	72.6	73.2	77.7	75.3	76.9	74.6	76.1	77.9	76.2	71.0	67.8	67.4	64.6	62.4	60.0
SB	81.3	72.9	71.3	77.5	78.0	79.3	80.5	77.5	71.3	75.6	75.5	72.1	76.4	71.5	72.9	75.2	73.9	76.4	73.6	68.2	67.1	65.4	60.1	58.3	55.8
MB	82.4	65.0	78.2	68.1	65.5	78.1	68.3	74.4	79.3	78.6	74.8	72.0	71.1	77.6	72.3	65.9	71.2	72.7	75.8	73.6	68.2	74.4	66.9	66.0	59.4
TC	72.7	68.0	72.4	66.6	68.8	71.8	70.5	70.9	70.0	68.8	69.2	65.1	70.7	70.5	66.5	66.6	68.2	67.8	67.6	65.5	67.2	68.0	69.7	68.8	66.4
SC	79.7	48.7	69.7	74.9	76.2	69.0	69.4	70.1	72.2	67.8	69.8	74.0	71.5	71.5	60.9	63.8	69.3	73.4	72.1	67.3	66.3	65.1	61.1	58.9	56.6
MC	80	64.4	64.2	66.9	72.8	75.9	71.8	73.2	70.2	72.0	69.7	69.0	70.3	69.7	80.7	69.1	72.5	71.2	68.4	68.5	63.8	61.5	59.3	56.4	53.7
TN	79.1	61.4	67.6	63.0	61.6	70.3	70.8	69.9	72.5	67.2	70.0	75.3	71.4	70.0	74.6	75.1	69.2	72.5	70.5	67.4	65.0	64.3	60.6	59.2	56.3
SN	84.2	58.9	67.8	62.4	66.8	68.8	68.2	72.2	72.7	75.3	73.9	72.9	73.9	77.4	75.5	77.4	76.4	75.8	77.7	76.1	71.1	68.2	67.3	64.2	62.1
MN	83.5	71.4	78.3	69.7	72.1	79.0	74.8	79.3	80.7	79.3	76.6	75.9	82.2	76.9	74.8	72.7	72.7	73.5	77.3	73.5	69.9	73.3	68.1	67.0	62.6

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																							
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000
CA1	84.3	73.6	77.3	70.2	76.6	75.7	79.0	77.1	83.1	78.0	75.0	72.7	79.7	74.5	78.6	78.9	71.2	79.0	78.1	73.0	68.0	67.1	63.8	61.1	58.0
CA2	84.3	73.6	77.3	70.2	76.6	75.7	79.0	77.1	83.1	78.0	75.0	72.7	79.7	74.5	78.6	78.9	71.2	79.0	78.1	73.0	68.0	67.1	63.8	61.1	58.0
CA3	84.3	73.6	77.3	70.2	76.6	75.7	79.0	77.1	83.1	78.0	75.0	72.7	79.7	74.5	78.6	78.9	71.2	79.0	78.1	73.0	68.0	67.1	63.8	61.1	58.0
CA4	84.3	73.6	77.3	70.2	76.6	75.7	79.0	77.1	83.1	78.0	75.0	72.7	79.7	74.5	78.6	78.9	71.2	79.0	78.1	73.0	68.0	67.1	63.8	61.1	58.0
CB1	77.6	62.0	77.0	58.1	65.0	65.4	68.8	71.4	70.7	70.5	69.1	75.5	71.2	73.5	69.1	68.5	71.6	69.8	69.0	66.7	66.1	62.6	61.2	57.9	54.6
CB2	77.6	62.0	77.0	58.1	65.0	65.4	68.8	71.4	70.7	70.5	69.1	75.5	71.2	73.5	69.1	68.5	71.6	69.8	69.0	66.7	66.1	62.6	61.2	57.9	54.6
CC1	88.0	72.6	72.9	72.3	66.9	69.2	65.2	66.8	71.6	74.3	74.4	79.1	78.6	74.5	79.1	84.9	83.1	80.5	77.6	77.8	73.6	72.1	64.5	62.6	60.4
CC2	88.0	72.6	72.9	72.3	66.9	69.2	65.2	66.8	71.6	74.3	74.4	79.1	78.6	74.5	79.1	84.9	83.1	80.5	77.6	77.8	73.6	72.1	64.5	62.6	60.4
CN1	81.6	72.7	80.6	72.3	66.7	74.2	71.6	74.8	77.9	77.4	75.5	72.6	71.6	76.5	71.4	66.6	70.9	72.9	75.4	72.0	68.1	71.9	66.6	65.6	59.0
CN2	81.6	72.7	80.6	72.3	66.7	74.2	71.6	74.8	77.9	77.4	75.5	72.6	71.6	76.5	71.4	66.6	70.9	72.9	75.4	72.0	68.1	71.9	66.6	65.6	59.0

ตารางที่ ข.27 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 27

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	89.9	51.3	56.8	59.0	65.1	67.4	68.4	72.6	80.5	83.9	85.2	79.5	70.6	70.3	72.5	77.2	75.6	74.6	76.0	76.0	69.1	68.4	66.7	70.3	70.9	66.9	62.4	64.1	66.1	62.3	60.1	57.7
TA3	84.8	55.3	63.9	59.0	63.5	66.9	69.1	72.8	73.4	73.9	74.5	78.0	77.9	77.1	73.6	73.5	73.9	76.9	78.2	76.6	71.4	68.6	66.7	64.8	62.2	60.5	57.9	54.4	54.4	51.5	48.5	43.8
SA	89.9	58.0	57.3	61.4	85.0	81.1	83.7	71.9	69.7	69.1	68.5	71.8	70.8	72.9	76.3	78.7	76.2	73.6	75.6	76.7	70.2	71.2	63.5	65.5	67.7	67.6	63.1	64.9	66.1	62.6	60.4	57.7
MA	82.1	67.7	72.2	75.7	77.3	79.9	78.1	71.9	80.3	78.1	79.0	79.1	78.6	77.0	76.0	76.1	74.2	73.2	72.2	70.8	69.5	67.1	64.3	61.9	59.6	57.5	54.4	51.8	48.6	43.9	39.7	34.2
TB	84.6	64.8	62.3	58.7	63.6	79.5	71.0	71.4	74.5	74.2	74.7	76.7	75.5	76.8	75.9	77.5	76.2	77.7	76.4	71.4	67.2	69.5	69.2	66.9	64.1	61.3	59.9	58.2	57.6	56.3	56.3	55.7
SB	82.1	60.0	73.1	71.5	76.3	77.5	80.0	75.6	72.7	78.7	78.9	79.0	72.5	75.3	75.6	75.7	73.7	73.3	71.6	70.5	68.7	66.2	63.9	61.3	58.3	55.4	52.2	48.9	45.8	41.5	37.2	32.3
MB	79.6	66.2	76.4	75.6	75.3	76.8	77.4	77.7	78.3	73.4	70.8	74.2	74.9	72.8	72.5	71.9	72.6	71.0	72.4	70.9	66.6	63.7	61.4	58.0	55.3	51.9	49.0	47.8	46.3	42.5	37.1	30.3
TC	87.8	56.1	61.3	63.1	63.9	69.7	69.2	68.3	72.4	75.0	73.6	78.6	78.0	73.3	77.6	84.9	82.9	80.5	77.6	77.1	73.5	72.0	65.1	63.1	63.0	60.7	57.6	57.6	58.0	53.4	47.3	40.7
SC	83	68.3	77.3	78.5	78.3	82.0	84.3	79.5	82.6	81.3	77.0	77.3	78.2	77.8	76.5	76.8	76.6	75.0	72.1	72.8	69.9	67.2	65.2	63.6	62.4	60.7	58.7	55.8	54.4	51.2	47.2	43.2
MC	82.4	66.3	76.3	72.7	77.5	79.0	77.8	75.2	76.3	78.2	79.8	78.1	75.9	76.1	75.2	75.7	74.6	74.0	72.4	70.9	70.3	68.0	65.4	62.7	60.2	57.4	54.7	52.8	49.2	44.5	40.7	34.8
TN	83.2	57.1	58.1	66.8	75.0	77.2	76.2	72.6	73.3	70.8	79.2	78.8	81.8	77.5	76.3	77.1	76.1	74.7	72.1	74.0	70.5	67.8	64.9	63.2	61.9	60.3	58.3	55.6	54.1	50.7	46.7	42.6
SN	83.5	67.6	77.7	81.1	78.8	74.8	75.5	74.4	73.2	71.8	78.6	78.6	75.6	76.0	75.9	77.5	77.6	75.9	72.3	73.3	70.4	68.0	65.5	64.1	62.7	61.4	59.2	56.9	55.2	51.9	47.8	43.7
MN	82	67.2	66.6	68.7	74.4	72.2	76.1	76.4	74.5	73.2	68.9	72.8	70.7	69.1	80.6	70.4	73.0	75.3	69.5	68.2	64.6	63.5	60.3	56.9	54.5	52.3	48.7	46.0	45.4	40.3	34.3	29.1

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 จอกลท (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	76.8	63.9	62.9	65.3	62.6	66.9	67.4	71.4	70.9	67.1	65.5	66.0	66.5	66.4	67.5	72.5	68.6	66.4	67.9	67.9	66.8	64.7	61.4	58.9	57.1	54.8	51.5	52.9	51.9	50.2	55.3	43.1
CA2	76.8	63.9	62.9	65.3	62.6	66.9	67.4	71.4	70.9	67.1	65.5	66.0	66.5	66.4	67.5	72.5	68.6	66.4	67.9	67.9	66.8	64.7	61.4	58.9	57.1	54.8	51.5	52.9	51.9	50.2	55.3	43.1
CA3	76.8	63.9	62.9	65.3	62.6	66.9	67.4	71.4	70.9	67.1	65.5	66.0	66.5	66.4	67.5	72.5	68.6	66.4	67.9	67.9	66.8	64.7	61.4	58.9	57.1	54.8	51.5	52.9	51.9	50.2	55.3	43.1
CA4	76.8	63.9	62.9	65.3	62.6	66.9	67.4	71.4	70.9	67.1	65.5	66.0	66.5	66.4	67.5	72.5	68.6	66.4	67.9	67.9	66.8	64.7	61.4	58.9	57.1	54.8	51.5	52.9	51.9	50.2	55.3	43.1
CB1	87.8	74.3	67.3	66.0	65.3	69.1	67.5	69.5	72.4	73.8	72.6	77.8	78.3	73.0	77.1	84.9	83.7	79.9	77.4	78.1	73.6	72.1	65.1	62.8	62.7	60.5	57.7	57.8	58.2	52.9	46.8	40.3
CB2	87.8	74.3	67.3	66.0	65.3	69.1	67.5	69.5	72.4	73.8	72.6	77.8	78.3	73.0	77.1	84.9	83.7	79.9	77.4	78.1	73.6	72.1	65.1	62.8	62.7	60.5	57.7	57.8	58.2	52.9	46.8	40.3
CC1	79.0	67.7	77.0	73.7	68.0	73.2	68.2	71.4	70.3	67.3	67.2	67.9	66.3	71.3	73.4	69.9	73.1	73.1	72.4	67.2	64.5	63.3	61.1	58.7	56.5	53.4	50.2	48.0	45.1	41.6	38.4	35.0
CC2	79.0	67.7	77.0	73.7	68.0	73.2	68.2	71.4	70.3	67.3	67.2	67.9	66.3	71.3	73.4	69.9	73.1	73.1	72.4	67.2	64.5	63.3	61.1	58.7	56.5	53.4	50.2	48.0	45.1	41.6	38.4	35.0
CN1	78.8	64.2	81.0	70.6	66.0	74.8	73.6	79.3	80.1	82.6	78.1	75.9	74.4	74.3	69.9	65.7	67.5	70.8	69.5	68.3	63.8	67.4	65.5	62.1	60.5	56.8	53.3	50.0	50.4	47.7	39.4	35.5
CN2	78.8	64.2	81.0	70.6	66.0	74.8	73.6	79.3	80.1	82.6	78.1	75.9	74.4	74.3	69.9	65.7	67.5	70.8	69.5	68.3	63.8	67.4	65.5	62.1	60.5	56.8	53.3	50.0	50.4	47.7	39.4	35.5

ตารางที่ ข.28 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 28

ลำน้ำ	SPL (dBA)	ค่าระดับเสียงที่วัดความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	80	68.1	68.5	71.1	71.5	76.4	75.7	79.0	79.6	74.2	76.6	76.5	73.0	74.3	73.8	75.5	71.5	73.3	71.9	66.6	64.5	63.5	59.1	56.8	54.8	54.6	51.5	45.4	45.8	39.7	32.2	26.5
TA3	79.5	63.8	69.6	62.5	63.5	69.9	70.7	70.6	71.2	67.2	68.6	75.6	72.1	71.7	73.7	75.1	69.9	73.2	71.2	67.1	66.4	65.2	61.3	59.3	56.7	54.9	54.4	52.9	52.1	50.3	48.6	44.8
SA	81.3	55.9	86.3	61.2	67.8	74.8	72.8	72.8	70.6	69.7	69.6	69.8	72.2	75.2	78.1	71.6	75.7	73.3	71.2	71.8	69.5	66.6	63.6	61.9	59.6	57.3	53.1	51.5	48.2	46.2	43.0	36.3
MA	80.1	72.5	75.0	76.5	74.1	77.9	77.2	80.2	76.2	72.6	70.3	74.6	75.1	74.4	73.4	73.2	74.9	72.8	72.9	71.5	67.6	65.2	62.6	59.9	57.1	53.6	51.0	49.1	47.0	43.2	37.7	31.1
TB	83	66.6	66.1	75.2	75.5	77.9	76.3	77.6	77.1	75.3	76.8	76.1	71.9	71.7	82.3	72.1	77.9	74.6	72.5	74.5	66.2	64.3	62.5	59.1	57.7	54.8	53.3	48.3	47.3	43.9	36.7	31.2
EB	79.2	50.3	67.1	74.9	62.9	70.3	69.1	70.1	70.5	67.6	69.8	74.4	72.0	71.4	74.1	70.3	69.9	72.8	71.1	66.7	65.5	64.5	60.9	59.2	56.3	54.6	54.4	52.3	51.3	49.9	48.0	44.3
MB	80.7	55.5	69.6	71.9	71.7	76.7	80.0	76.4	78.3	78.5	77.4	72.5	75.6	75.3	70.6	72.0	72.1	73.2	71.5	70.9	70.4	66.6	64.2	61.7	57.7	54.3	51.9	47.0	44.0	40.8	37.8	35.3
TC	81.6	60.1	86.0	59.1	68.2	75.8	71.7	74.9	68.6	69.1	66.8	69.3	73.2	75.4	77.9	70.5	74.6	74.2	71.7	71.9	69.9	67.0	65.2	63.1	60.2	59.0	53.5	52.3	48.5	46.9	43.5	36.5
SC	83.1	53.3	55.9	58.3	66.1	76.9	69.7	76.2	71.0	73.2	69.5	78.2	81.0	73.1	71.4	73.5	76.6	74.7	72.1	72.3	70.6	68.5	66.6	64.8	61.3	61.6	54.6	55.4	49.9	47.3	43.8	37.2
MC	79.8	66.3	68.6	64.8	67.0	74.5	74.5	75.7	69.5	67.6	69.1	74.3	72.2	70.7	68.5	69.5	70.9	73.7	72.3	67.0	65.3	64.6	61.4	59.4	56.4	55.1	54.5	53.1	52.3	50.4	48.6	44.8
TN	82.6	67.3	66.3	65.1	67.9	77.5	71.4	76.1	73.4	75.1	68.2	72.0	73.2	78.4	81.3	72.5	75.3	74.4	72.2	71.7	70.2	68.6	66.0	63.8	60.6	61.6	54.6	54.6	49.4	47.3	43.3	37.2
SN	83.7	62.0	68.4	73.0	76.0	76.3	78.7	77.5	83.3	77.0	74.4	74.8	76.6	71.8	79.6	75.7	72.5	70.3	71.4	71.8	66.0	64.9	64.1	59.9	57.2	55.1	53.2	48.9	47.4	43.5	37.0	32.2
MN	81.8	67.0	87.2	68.3	69.1	75.9	69.5	72.8	72.9	68.9	68.1	70.6	71.9	77.6	78.3	72.0	76.1	73.4	71.5	71.9	68.9	68.3	64.1	63.0	60.8	58.3	53.7	52.9	49.1	47.1	42.9	37.7

ตำแหน่ง	SPL (dBA)	การสับเสียงที่ความถี่ 1/3 จอทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	85.1	60.0	70.7	68.6	66.5	69.3	74.6	74.6	78.0	77.1	77.0	75.5	76.9	77.9	77.2	70.7	78.5	71.9	74.8	81.1	71.0	69.2	65.0	62.0	58.9	57.2	53.4	50.1	48.2	44.1	42.2	38.1
CA2	85.1	60.0	70.7	68.6	66.5	69.3	74.6	74.6	78.0	77.1	77.0	75.5	76.9	77.9	77.2	70.7	78.5	71.9	74.8	81.1	71.0	69.2	65.0	62.0	58.9	57.2	53.4	50.1	48.2	44.1	42.2	38.1
CA3	85.1	60.0	70.7	68.6	66.5	69.3	74.6	74.6	78.0	77.1	77.0	75.5	76.9	77.9	77.2	70.7	78.5	71.9	74.8	81.1	71.0	69.2	65.0	62.0	58.9	57.2	53.4	50.1	48.2	44.1	42.2	38.1
CA4	85.1	60.0	70.7	68.6	66.5	69.3	74.6	74.6	78.0	77.1	77.0	75.5	76.9	77.9	77.2	70.7	78.5	71.9	74.8	81.1	71.0	69.2	65.0	62.0	58.9	57.2	53.4	50.1	48.2	44.1	42.2	38.1
CB1	81.1	53.7	67.1	69.8	73.5	76.3	80.8	78.3	78.8	81.3	80.0	73.4	75.8	74.8	69.3	72.0	72.3	73.9	71.6	71.7	71.1	66.7	64.6	62.4	57.9	54.7	52.1	47.5	44.5	41.4	38.1	35.2
CB2	81.1	53.7	67.1	69.8	73.5	76.3	80.8	78.3	78.8	81.3	80.0	73.4	75.8	74.8	69.3	72.0	72.3	73.9	71.6	71.7	71.1	66.7	64.6	62.4	57.9	54.7	52.1	47.5	44.5	41.4	38.1	35.2
CC1	84.4	58.2	67.9	63.2	70.6	74.1	80.0	71.2	72.1	69.0	68.5	74.7	75.8	74.1	80.3	76.7	80.2	77.6	76.5	72.6	68.8	67.9	64.3	62.4	61.2	61.2	57.6	57.6	55.2	50.6	43.6	34.7
CC2	84.4	58.2	67.9	63.2	70.6	74.1	80.0	71.2	72.1	69.0	68.5	74.7	75.8	74.1	80.3	76.7	80.2	77.6	76.5	72.6	68.8	67.9	64.3	62.4	61.2	61.2	57.6	57.6	55.2	50.6	43.6	34.7
CN1	74.1	65.7	69.4	65.5	65.6	74.2	73.8	76.8	77.1	80.4	74.9	71.8	71.0	67.5	66.2	65.0	66.1	62.9	62.2	62.7	60.8	61.5	58.1	55.5	51.6	47.7	45.8	45.2	43.8	39.5	35.9	32.1
CN2	74.1	65.7	69.4	65.5	65.6	74.2	73.8	76.8	77.1	80.4	74.9	71.8	71.0	67.5	66.2	65.0	66.1	62.9	62.2	62.7	60.8	61.5	58.1	55.5	51.6	47.7	45.8	45.2	43.8	39.5	35.9	32.1

ตารางที่ ข.29 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 29

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 จอกลท (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	82.5	62.6	67.8	74.0	74.2	75.7	77.4	79.4	75.1	76.8	74.5	73.6	71.0	70.8	75.3	71.3	77.6	75.6	71.4	75.1	65.6	64.1	62.3	59.4	56.4	53.8	51.9	48.5	48.2	43.6	36.9	32.0
TA3	79.8	67.1	67.9	64.0	75.1	74.4	77.8	72.0	65.7	70.5	67.1	67.6	68.1	68.4	71.3	72.4	72.1	72.8	74.3	67.3	64.7	62.9	59.9	56.7	56.1	56.6	54.5	54.0	53.6	48.4	43.0	33.5
SA	80.3	65.1	67.2	62.7	67.7	68.6	69.1	68.4	73.1	74.3	75.5	66.8	67.7	67.8	71.7	73.2	72.4	70.0	66.2	66.7	65.3	62.5	60.0	57.3	57.1	57.4	54.7	54.5	53.5	48.2	42.0	31.6
MA	79	68.6	64.3	66.9	74.0	71.2	69.4	73.5	71.0	69.1	67.0	66.5	68.0	69.3	69.7	71.2	72.6	73.3	68.1	66.8	64.2	62.7	59.5	56.7	56.4	56.4	53.9	54.2	53.6	48.1	42.0	31.9
TB	83.2	62.7	66.9	78.8	72.8	80.0	75.7	72.8	75.0	76.2	76.7	77.8	75.1	77.6	72.8	75.6	72.7	71.8	72.4	73.4	68.3	66.3	63.7	60.6	57.1	54.1	51.9	48.6	48.1	43.5	38.3	34.1
SB	80.3	68.7	64.5	58.5	68.6	71.3	66.3	70.3	73.2	69.8	73.3	73.5	74.5	75.3	67.4	67.9	67.5	69.9	72.5	67.5	65.9	63.3	60.8	57.4	57.1	57.1	54.1	54.1	53.4	48.5	42.3	32.5
MB	79.7	69.1	63.0	61.6	65.7	68.3	70.9	71.6	75.4	71.5	71.1	68.8	67.6	68.4	70.6	73.1	73.3	73.4	74.3	67.7	65.0	63.6	60.7	57.6	57.6	57.0	54.4	54.6	53.3	48.6	42.2	31.9
TC	80	66.9	73.6	75.9	73.2	73.4	71.4	69.7	73.9	69.3	67.3	67.9	68.6	67.1	64.3	62.7	65.0	69.2	68.0	66.9	65.9	62.9	60.0	57.1	57.0	57.1	54.4	54.9	54.0	48.3	40.9	31.8
SC	82.4	65.0	78.2	68.1	65.5	78.1	68.3	79.3	78.6	74.4	74.8	72.0	71.1	77.6	72.3	65.9	71.2	72.7	75.8	73.6	68.2	74.4	66.9	66.0	59.4	56.8	55.9	56.1	58.7	56.1	49.1	40.3
MC	78.6	60.8	60.7	62.7	69.2	66.6	69.1	67.3	72.7	68.6	67.2	66.3	66.0	76.5	70.4	74.0	69.2	67.8	69.4	69.5	68.3	65.9	62.5	59.5	57.4	55.4	51.7	52.7	51.6	49.6	54.3	41.8
TN	85	66.6	68.9	67.8	70.0	76.0	78.1	77.8	74.0	79.3	80.0	82.0	77.3	80.7	74.6	74.8	76.2	75.9	76.3	76.3	76.3	71.2	68.8	65.9	63.1	59.4	56.5	52.6	48.9	45.5	42.8	40.1
SN	83.3	65.6	69.0	76.0	75.0	80.7	78.5	78.3	78.6	77.2	76.4	75.8	74.2	71.7	70.5	72.1	79.0	74.9	72.3	72.7	65.1	63.9	63.0	59.7	56.5	55.0	52.4	48.5	47.5	43.7	37.3	32.4
MN	82	67.2	66.6	68.7	74.4	72.2	76.1	76.4	74.5	73.2	68.9	72.8	80.6	69.1	70.7	70.4	73.0	75.3	69.5	68.2	64.6	63.5	60.3	56.9	54.5	52.3	48.7	46.0	45.4	40.3	34.3	29.1

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 จอกลท (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	84.3	57.6	79.4	60.1	60.8	73.5	69.5	79.1	75.7	77.8	74.8	73.6	76.9	76.6	77.8	76.4	78.3	74.6	75.7	76.6	71.1	70.3	67.3	65.1	64.0	57.8	56.0	57.7	57.3	52.5	48.2	46.3
CA2	84.3	57.6	79.4	60.1	60.8	73.5	69.5	79.1	75.7	77.8	74.8	73.6	76.9	76.6	77.8	76.4	78.3	74.6	75.7	76.6	71.1	70.3	67.3	65.1	64.0	57.8	56.0	57.7	57.3	52.5	48.2	46.3
CA3	84.3	57.6	79.4	60.1	60.8	73.5	69.5	79.1	75.7	77.8	74.8	73.6	76.9	76.6	77.8	76.4	78.3	74.6	75.7	76.6	71.1	70.3	67.3	65.1	64.0	57.8	56.0	57.7	57.3	52.5	48.2	46.3
CA4	84.3	57.6	79.4	60.1	60.8	73.5	69.5	79.1	75.7	77.8	74.8	73.6	76.9	76.6	77.8	76.4	78.3	74.6	75.7	76.6	71.1	70.3	67.3	65.1	64.0	57.8	56.0	57.7	57.3	52.5	48.2	46.3
CB1	85.1	58.1	75.9	61.1	64.9	69.6	69.2	73.5	70.9	72.8	73.2	71.8	74.1	74.6	76.0	74.7	79.6	77.7	79.6	75.1	71.9	70.0	67.2	64.7	63.7	59.6	55.6	55.3	53.7	48.9	44.0	37.6
CB2	85.1	58.1	75.9	61.1	64.9	69.6	69.2	73.5	70.9	72.8	73.2	71.8	74.1	74.6	76.0	74.7	79.6	77.7	79.6	75.1	71.9	70.0	67.2	64.7	63.7	59.6	55.6	55.3	53.7	48.9	44.0	37.6
CC1	75.7	59.1	75.5	63.6	67.7	66.0	66.1	72.7	69.1	72.6	67.4	67.3	68.5	70.6	67.5	69.7	65.8	67.0	70.2	65.3	60.5	62.3	56.7	54.9	53.2	50.7	48.0	46.0	45.0	39.1	35.6	31.5
CC2	75.7	59.1	75.5	63.6	67.7	66.0	66.1	72.7	69.1	72.6	67.4	67.3	68.5	70.6	67.5	69.7	65.8	67.0	70.2	65.3	60.5	62.3	56.7	54.9	53.2	50.7	48.0	46.0	45.0	39.1	35.6	31.5
CN1	82.2	65.5	81.4	73.1	68.6	78.1	70.1	76.4	83.6	78.4	79.1	72.9	72.4	77.1	70.6	66.5	70.5	72.1	76.0	73.6	67.8	72.7	67.2	66.2	59.7	57.4	56.5	55.9	58.2	55.8	48.6	40.5
CN2	82.2	65.5	81.4	73.1	68.6	78.1	70.1	76.4	83.6	78.4	79.1	72.9	72.4	77.1	70.6	66.5	70.5	72.1	76.0	73.6	67.8	72.7	67.2	66.2	59.7	57.4	56.5	55.9	58.2	55.8	48.6	40.5

ตารางที่ ข.30 ผลการตรวจวัดค่าระดับเสียงตามความถี่ของแหล่งกำเนิดครั้งที่ 30

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	32	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
TA2	79.8	55.5	73.2	60.5	63.6	70.7	69.5	77.0	81.0	80.6	77.5	73.8	70.3	71.7	74.0	73.0	72.2	70.3	71.2	67.7	68.4	67.6	65.2	62.7	60.0	56.8	53.9	51.2	49.4	46.8	45.3	41.9
TA3	76.8	68.2	70.5	74.6	72.1	72.8	76.4	75.3	73.6	71.2	71.2	70.2	69.9	69.4	68.7	69.5	70.2	68.6	69.0	68.0	64.0	62.2	59.4	57.3	54.9	53.0	50.5	50.1	49.3	48.2	44.1	37.3
SA	82.3	65.2	73.5	77.3	76.1	79.9	80.8	81.5	78.0	74.1	74.2	77.1	77.3	75.3	75.7	74.4	75.7	74.0	73.7	73.6	69.2	66.2	65.7	62.9	60.0	57.3	57.3	56.1	58.7	57.6	53.3	44.0
MA	82.1	62.9	72.4	67.9	71.6	74.3	74.2	75.7	76.0	77.0	72.2	71.6	74.1	73.5	71.0	73.1	77.5	71.8	70.6	75.2	72.6	67.9	65.0	61.1	58.8	58.7	54.1	51.6	48.5	46.1	43.7	40.7
TB	83.2	77.1	84.6	83.4	84.2	77.7	81.9	80.8	77.9	77.1	77.1	76.7	76.9	73.0	75.8	75.4	73.6	77.8	76.6	70.2	70.8	70.0	63.7	61.4	59.2	56.9	55.0	51.9	50.8	47.0	44.3	41.9
SB	84.2	68.0	74.5	73.4	78.7	80.7	79.3	77.9	77.4	78.9	79.9	78.6	76.2	74.7	73.9	84.5	73.1	74.0	72.8	72.6	69.0	65.0	62.6	60.3	56.7	53.2	51.8	59.0	49.0	49.7	49.6	43.1
MB	72.8	55.5	68.1	58.0	62.1	67.2	62.9	66.0	66.2	67.0	68.7	67.0	69.6	63.5	62.9	68.3	60.8	66.8	66.4	61.3	57.9	56.1	53.1	51.5	49.9	46.2	44.6	39.5	36.0	33.3	29.2	29.7
TC	81.5	65.9	78.9	68.5	73.0	77.0	72.0	77.4	73.1	71.4	76.0	76.6	76.6	75.8	76.7	74.7	72.0	73.7	74.4	71.5	66.6	64.0	62.2	61.1	61.3	61.9	60.0	52.4	53.4	50.9	45.8	41.4
SC	83.1	56.8	69.6	66.2	64.3	71.6	73.8	72.1	68.9	68.5	70.8	69.2	70.5	76.6	77.9	78.4	76.0	74.8	74.6	70.9	70.0	68.8	65.6	64.6	61.6	59.3	56.7	53.9	53.1	49.4	43.4	39.0
MC	90	53.9	71.3	59.6	64.4	68.7	70.8	72.2	76.6	72.8	72.0	69.9	81.9	73.8	80.1	80.5	76.6	85.1	87.2	72.3	71.9	70.4	63.5	60.4	59.8	56.7	55.5	51.3	48.8	47.0	45.3	43.7
TN	76.1	61.5	66.0	70.5	67.8	71.9	70.5	71.8	71.4	71.5	72.0	69.1	72.0	69.4	67.9	68.3	67.2	69.0	68.2	67.4	64.2	60.2	58.3	56.1	52.7	51.0	48.8	46.5	41.6	35.4	28.0	23.1
SN	74.2	58.1	64.0	68.5	68.3	73.5	74.0	72.1	70.7	69.0	65.7	63.8	65.3	66.8	66.9	67.0	65.9	66.0	67.4	64.5	61.8	60.8	58.7	56.2	54.1	51.0	48.5	46.6	44.5	39.9	31.0	22.7
MN	87.6	63.0	71.0	68.6	69.5	74.5	76.8	76.1	77.1	77.8	79.6	79.3	86.2	82.0	80.7	78.7	81.5	79.0	78.8	79.1	75.2	69.9	67.8	65.4	61.8	60.5	61.0	56.5	51.4	50.3	44.8	42.6

ตำแหน่ง	SPL (dBA)	ค่าระดับเสียงที่ช่วงความถี่ 1/3 ออกทพ (เดซิเบล)																														
		20	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
CA1	85.5	60.6	79.1	59.2	62.0	75.6	70.6	77.9	77.7	76.0	78.8	73.3	76.8	77.4	77.0	77.3	78.8	74.5	75.6	76.8	71.0	70.1	67.4	64.9	64.6	57.9	56.2	57.7	57.0	52.0	47.4	45.8
CA2	85.5	60.6	79.1	59.2	62.0	75.6	70.6	77.9	77.7	76.0	78.8	73.3	76.8	77.4	77.0	77.3	78.8	74.5	75.6	76.8	71.0	70.1	67.4	64.9	64.6	57.9	56.2	57.7	57.0	52.0	47.4	45.8
CA3	85.5	60.6	79.1	59.2	62.0	75.6	70.6	77.9	77.7	76.0	78.8	73.3	76.8	77.4	77.0	77.3	78.8	74.5	75.6	76.8	71.0	70.1	67.4	64.9	64.6	57.9	56.2	57.7	57.0	52.0	47.4	45.8
CA4	85.5	60.6	79.1	59.2	62.0	75.6	70.6	77.9	77.7	76.0	78.8	73.3	76.8	77.4	77.0	77.3	78.8	74.5	75.6	76.8	71.0	70.1	67.4	64.9	64.6	57.9	56.2	57.7	57.0	52.0	47.4	45.8
CB1	78.3	63.1	73.3	60.4	57.7	76.0	65.7	71.6	71.2	70.3	68.1	68.0	66.6	70.9	71.3	69.6	72.1	72.1	72.1	66.4	64.3	63.0	61.2	58.9	57.0	53.6	50.2	48.3	45.3	41.6	38.4	35.0
CB2	78.3	63.1	73.3	60.4	57.7	76.0	65.7	71.6	71.2	70.3	68.1	68.0	66.6	70.9	71.3	69.6	72.1	72.1	72.1	66.4	64.3	63.0	61.2	58.9	57.0	53.6	50.2	48.3	45.3	41.6	38.4	35.0
CC1	84.3	59.0	68.4	66.0	63.7	72.7	71.7	69.6	69.6	71.4	70.1	73.1	74.5	74.8	79.7	76.0	80.0	77.9	76.9	72.5	67.9	67.6	64.3	62.4	60.9	60.9	57.2	57.4	54.8	50.1	43.1	34.6
CC2	84.3	59.0	68.4	66.0	63.7	72.7	71.7	69.6	69.6	71.4	70.1	73.1	74.5	74.8	79.7	76.0	80.0	77.9	76.9	72.5	67.9	67.6	64.3	62.4	60.9	60.9	57.2	57.4	54.8	50.1	43.1	34.6
CN1	73.9	66.2	68.3	66.2	69.1	76.4	78.0	75.5	77.6	78.3	74.3	70.9	69.6	67.1	66.7	64.3	65.4	63.6	62.7	63.2	61.4	61.9	58.9	56.2	52.1	48.7	46.6	45.9	44.4	40.4	36.7	33.3
CN2	73.9	66.2	68.3	66.2	69.1	76.4	78.0	75.5	77.6	78.3	74.3	70.9	69.6	67.1	66.7	64.3	65.4	63.6	62.7	63.2	61.4	61.9	58.9	56.2	52.1	48.7	46.6	45.9	44.4	40.4	36.7	33.3



ภาคผนวก ค
ผลการวิเคราะห์ทางสถิติ

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

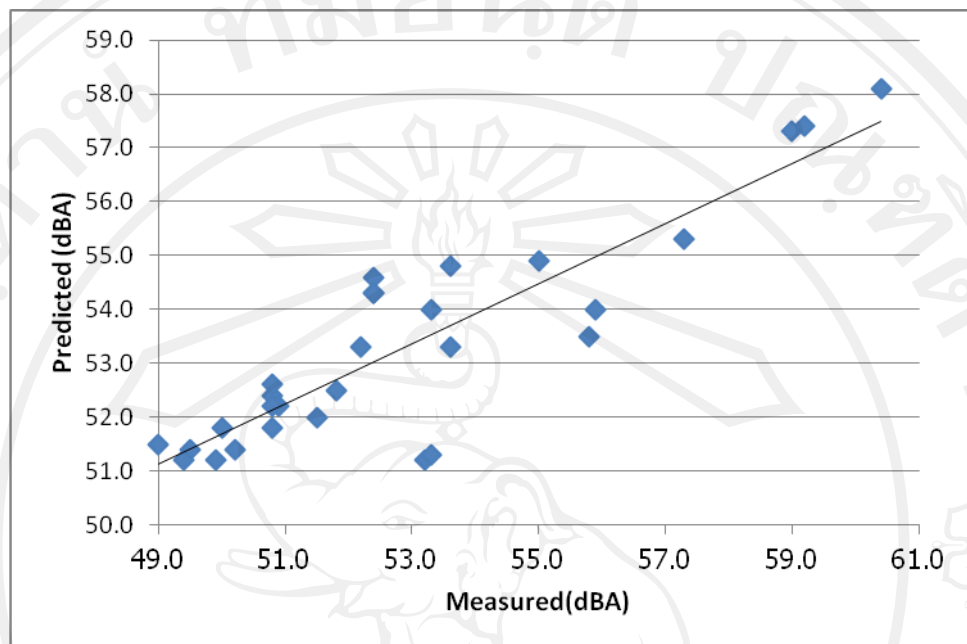
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ตารางที่ ค.1 เปรียบเทียบค่าระดับเสียงที่ตรวจวัดได้กับค่าระดับเสียงจากการทำนาย

จำนวนครั้งที่ ตรวจวัด	Ref. +410		HF		SPM	
	Measured (dBA)	Predicted (dBA)	Measured (dBA)	Predicted (dBA)	Measured (dBA)	Predicted (dBA)
1	55.8	53.5	41.1	40.2	37.5	38.4
2	48.6	51.3	38.3	38.3	36.7	37.3
3	50.8	52.4	40.7	39.8	38.7	38.4
4	53.6	53.3	39.8	40.7	39.4	41.0
5	53.6	54.8	44.8	42.5	39.9	41.3
6	50.9	52.2	43.1	41.0	38.7	41.5
7	50.8	52.6	39.8	40.4	42.0	43.0
8	49.9	51.2	40.6	39.4	39.8	41.7
9	50.2	51.4	40.2	38.9	39.5	40.9
10	59.0	57.3	45.2	44.4	40.8	41.8
11	49.0	51.5	40.4	40.1	41.2	42.2
12	51.5	52.0	39.5	40.2	41.7	41.6
13	49.5	51.4	39.1	38.9	40.3	40.2
14	50.0	51.8	39.9	40.0	41.0	41.9
15	57.3	55.3	41.2	42.6	40.6	41.1
16	52.2	53.3	39.4	40.8	41.0	41.0
17	60.4	58.1	46.1	45.2	40.4	42.1
18	49.4	51.2	41.0	39.2	41.6	42.2
19	52.4	54.6	42.4	41.1	38.3	40.1
20	55.0	54.9	43.2	43.0	41.8	43.7
21	55.9	54.0	41.0	41.5	43.0	41.8
22	59.2	57.4	43.2	44.1	43.3	42.9
23	50.8	51.8	40.4	40.5	42.4	42.2
24	53.2	51.2	40.2	40.1	39.9	41.4
25	53.3	51.3	40.2	40.9	42.8	42.6
26	52.4	54.3	44.4	42.7	43.2	44.0
27	50.8	52.2	41.9	40.7	42.1	42.6
28	51.8	52.5	40.2	41.0	41.8	42.7
29	53.3	54.0	41.6	41.5	41.9	42.1
30	52.4	54.3	43.0	41.2	40.2	39.3

ผลการวิเคราะห์ทางสถิติที่ตำแหน่ง Ref.+410

พิสูจน์ข้อมูลโดยใช้กราฟ Scatter plot



จากกราฟแสดงว่า ผลการตรวจวัด และผลการทำนายมีความสัมพันธ์กัน จึงใช้โปรแกรม Microsoft Excel ทำการประมวลผลข้อมูลได้ผลลัพธ์ดังนี้

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.888781
R Square	0.789932
Adjusted R Square	0.782430
Standard Error	0.914572
Observations	30

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	23.82388	2.871293	8.297264	4.99E-09
X Variable 1	0.557412	0.054323	10.26111	5.43E-11

เมื่อพิจารณาข้อมูลจากตารางที่ได้จากโปรแกรม Microsoft Excel เราจะได้สมการ Regression ดังนี้

$$\text{Predicted} = 23.824 + (0.557 * \text{Measured})$$

ทั้งนี้เพราะจาก ค่า P-Value ของค่าคงที่ และ สัมประสิทธิ์ของตัวแปรต้น (ผลจากการทำนาย) มีค่าน้อยกว่า 0.05 ทั้งคู่ทำให้ไม่สามารถละทิ้งได้ เมื่อพิจารณาค่าจากตาราง *Regression Statistics* ก็ จะเห็นว่า ค่า R^2 และ $R^2 \text{ Adjust}$ มีค่า 0.790 และ 0.782 จึงเชื่อได้ว่า ตัวแปรต้นและตัวแปรตาม ใน การทดลองครั้งนี้มีความสัมพันธ์ต่อกัน

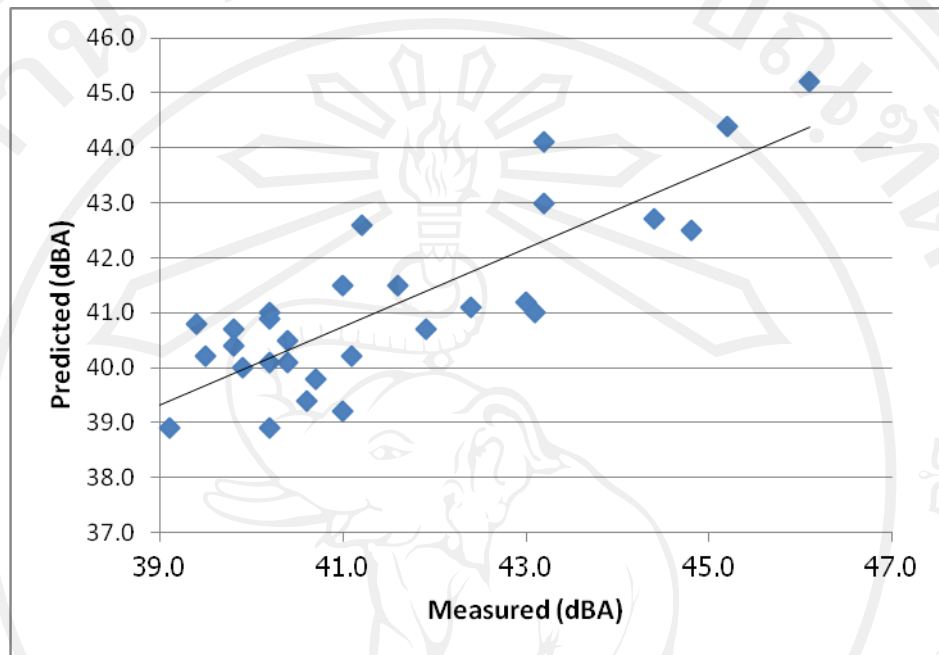
ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	88.06929	88.06929	105.2904	5.43182E-11
Residual	28	23.42038	0.836442		
Total	29	111.4897			

จากตาราง ANOVA ที่ได้ จะเห็นว่าค่า Regression มีค่ามากกว่า Residual (Error) ถึง 105.29 เท่า แสดงถึงสาระส่วนใหญ่ที่ได้หาคำสมการนี้ไปใช้ ก็จะเป็น Regression มากกว่า Error หรือ พิจารณาจากค่า P-Value ที่ถือได้ว่าเป็น 0 แสดงว่าสมการที่ได้มีความสัมพันธ์กันแบบเชิงเส้น (ปฏิเสธสมมติฐานที่ว่า สมการไม่ได้มีความสัมพันธ์กันแบบเชิงเส้น)

ผลการวิเคราะห์ทางสถิติที่ตำแหน่ง HF

พิสูจน์ข้อมูลโดยใช้กราฟ Scatter plot



จากกราฟแสดงว่า ผลการตรวจวัด และผลการทำนายมีความสัมพันธ์กัน จึงใช้โปรแกรม Microsoft Excel ทำการประมวลผลข้อมูลได้ผลลัพธ์ดังนี้

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.839514879
R Square	0.704785233
Adjusted R Square	0.694241848
Standard Error	0.913358755
Observations	30

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	11.4921242	3.616621199	3.17758581	0.003603609
X Variable 1	0.713532711	0.087272117	8.17595278	6.70672E-09

เมื่อพิจารณาข้อมูลจากตารางที่ได้จากโปรแกรม Microsoft Excel เราจะได้สมการ Regression ดังนี้

$$\text{Predicted} = 11.492 + (0.713 * \text{Measured})$$

ทั้งนี้เพราะจาก ค่า P-Value ของค่าคงที่ และ สัมประสิทธิ์ของตัวแปรต้น (ผลจากการทำนาย) มีค่าน้อยกว่า 0.05 ทั้งคู่ทำให้ไม่สามารถละทิ้งได้ เมื่อพิจารณาค่าจากตาราง *Regression Statistics* ก็ จะเห็นว่า ค่า R^2 และ $R^2 \text{ Adjust}$ มีค่า 0.705 และ 0.694 จึงเชื่อได้ว่า ตัวแปรต้นและตัวแปรตาม ในการ ทดลองครั้งนี้มีความสัมพันธ์ต่อกัน

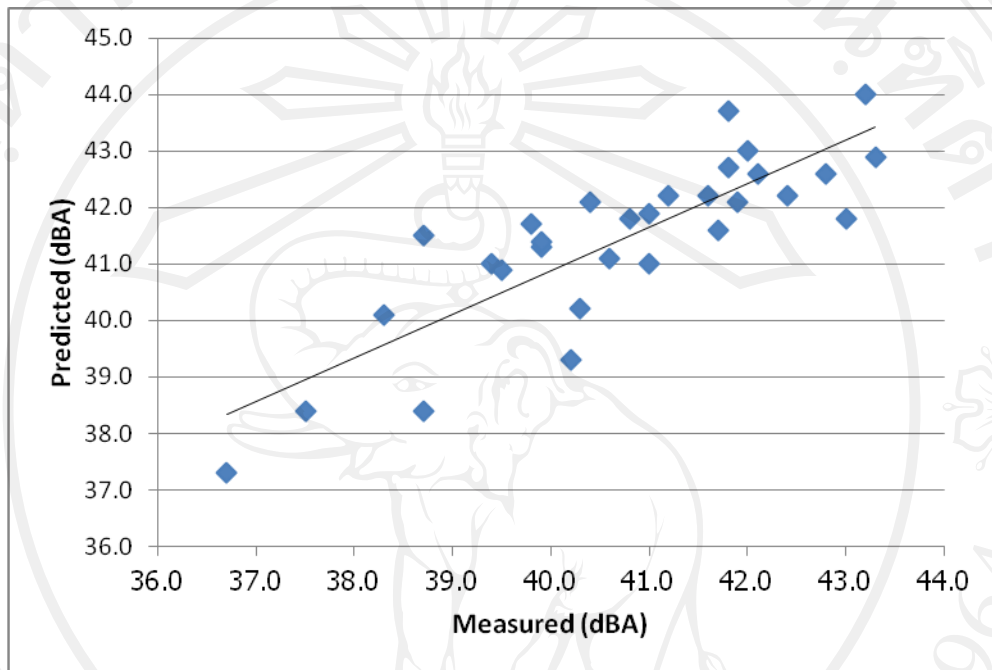
ANOVA

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	55.76472197	55.76472197	66.84620386	6.70672E-09
Residual	28	23.35827803	0.834224215		
Total	29	79.123			

จากตาราง ANOVA ที่ได้จะเห็นว่าค่า Regression มีค่ามากกว่า Residual (Error) 66.85 เท่า แสดงถึงสาระส่วนใหญ่ที่ได้หาคำสมการนี้ไปใช้ ก็จะเป็น Regression มากกว่า Error หรือพิจารณา จากค่า P-Value ที่ถือได้ว่าเป็น 0 แสดงว่า สมการที่ได้มีความสัมพันธ์กันแบบเชิงเส้น (ปฏิเสธสม มมติฐานที่ว่า สมการไม่ได้มีความสัมพันธ์กันแบบเชิงเส้น)

ผลการวิเคราะห์ทางสถิติที่ตำแหน่ง SPM

พิสูจน์ข้อมูลโดยใช้กราฟ Scatter plot



จากกราฟแสดงว่า ผลการตรวจวัด และผลการทำนายมีความสัมพันธ์กัน จึงใช้โปรแกรม Microsoft Excel ทำการประมวลผลข้อมูลได้ผลลัพธ์ดังนี้

SUMMARY OUTPUT

<i>Regression Statistics</i>	
Multiple R	0.839304251
R Square	0.704431626
Adjusted R Square	0.693875612
Standard Error	0.847402149
Observations	30

		<i>Standard</i>		
	<i>Coefficients</i>	<i>Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	10.13149088	3.834901049	2.641917159	0.013338997
X Variable 1	0.768772226	0.094108365	8.169010551	6.82162E-09

เมื่อพิจารณาข้อมูลจากตารางที่ได้จากโปรแกรม Microsoft Excel เราจะได้สมการ Regression ดังนี้

$$\text{Predicted} = 10.131 + (0.768 * \text{Measured})$$

ทั้งนี้เพราะจาก ค่า P-Value ของค่าคงที่ และ สัมประสิทธิ์ของตัวแปรต้น (ผลจากการทำนาย) มีค่าน้อยกว่า 0.05 ทั้งคู่ทำให้ไม่สามารถละทิ้งได้ เมื่อพิจารณาค่าจากตาราง *Regression Statistics* ก็จะเห็นว่า ค่า R^2 และ $R^2\text{Adjust}$ มีค่า 0.704 และ 0.693 จึงเชื่อได้ว่า ตัวแปรต้นและตัวแปรตาม ในการทดลองครั้งนี้มีความสัมพันธ์ต่อกัน

ANOVA

					<i>Significance</i>
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>F</i>
Regression	1	47.92013539	47.92013539	66.73273339	6.82162E-09
Residual	28	20.10653128	0.718090403		
Total	29	68.02666667			

จากตาราง ANOVA ที่ได้จะเห็นว่าค่า Regression มีค่ามากกว่า Residual (Error) 66.733 เท่า แสดงว่าสภาวะส่วนใหญ่ที่ได้หาค่าสมการนี้ไปใช้ ก็จะเป็น Regression มากกว่า Error หรือพิจารณาจากค่า P-Value ที่ถือได้ว่าเป็น 0 แสดงว่า สมการที่ได้มีความสัมพันธ์กันแบบเชิงเส้น (ปฏิเสธสมมติฐานที่ว่า สมการไม่ได้มีความสัมพันธ์กันแบบเชิงเส้น)

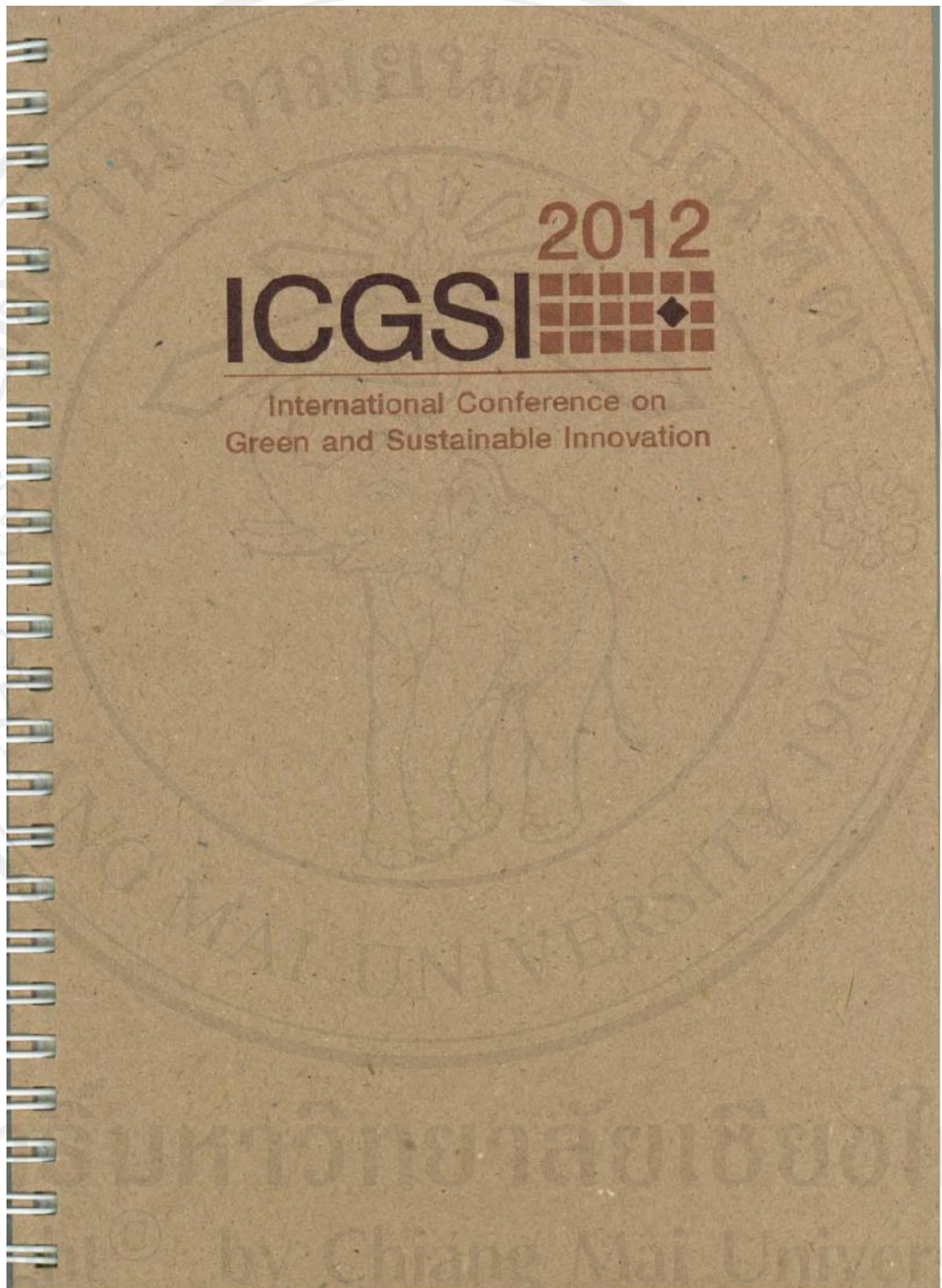


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บทความทางวิชาการที่ได้รับการเผยแพร่

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

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Application of SPM9613 Model on Noise Prediction from Mae Moh Lignite Mine

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Abstract

Noise modeling was employed as a tool to identify main sources of noise caused by overburden dumping activities in the North-western dumping area of Mae Moh lignite mine. The noise levels of 15 working machineries, including transfer point, motors, conveyors and spreaders were measured during wintertime of 2010 and were analyzed for their sound pressure levels and characteristic octave bands. Motors of line C were found to be a major noise source with the noise level of 97.2 dBA at the distance of 2 meters. A mathematical noise model, SPM9613, was employed to simulate the propagation of noise and to predict the noise levels in the sensitive receptor areas. The comparison between the model results and the measured values showed the maximum deviation of ± 0.9 dBA.

Keywords: Noise, Sound propagation model, Mae Moh mine, Overburden dumping, Octave band analysis

1. Introduction

Mae Moh coal mine is an open-pit type of lignite mining which requires earth surface removal and coal transfer. The processes were carried out using a number of heavy machineries and equipment, including excavators, dump trucks and a set of conveyors, to transfer the overburden to the dumping area and to transport lignite coals to the stockpile which is used as the main supply to electricity generators in the power plant nearby (EGAT, 2006). The open-pit mining could potentially cause some adverse impacts to the environment and nearby communities. One of the

major concerns is noise pollution caused by large machineries, e.g. excavators, carrier trucks, conveyors, grinders and other supporting equipment. Noise level from the open-pit mining activities is at the highest level compared to those from other industries, except that from airports (Sensogut & Cinar, 2006). There are several factors affecting the noise level including source characteristics, pathways, ambient temperature, humidity, atmospheric pressure, wind speed and directions etc. (Sharma, Mohanan, & Singh, 1997). At Mae Moh coal mine, there are extensive mitigating measures to control the noise pollution

caused by mining activities. Although the measured noise level always meets the regulatory standard, there have been regularly complaints from neighboring community, i.e. Hua Fai Village and Suan Pa Mae Moh Village, located in the north and adjacent to the West dumping area of the mine. The worst situation often happened during wintertime when the noise propagation was limited by calm weather, no wind and the occurrence of nocturnal atmospheric inversion. The wind direction was also found to affect the noise level in the way that opposite wind direction could lower the noise propagation and vice versa (Areepol, 2009). The locations of machineries and equipment used in the mine are not fixed since the relocation of them is required to serve different activities as the earth surface excavation progresses. Therefore, noise modeling is usually employed to predict noise level under these changing circumstances. In this study, a sound propagation model (SPM9613, Power Acoustics, Inc.) was taken to predict the distribution and magnitude of noise pollution that could potentially affect human health and the environment. Field noise measurement and octave band analysis were also performed in order to characterize the noises generated from coal mining activities.

2. Methodology

2.1 Equipment

Sound level meters and 1/3 and 1/1 octave band analyzers (System 01dB BlueSolo 60212) were used for noise measurement. The instrument meets the international standard of noise measurement (ANSI S1.4-1983, International Electrotechnical Commission (IEC)

60651-2001 and IEC 60804-2000 specifications for Type 1 sound level meters). The microphone was mounted with a windscreen to reduce the potential for wind-induced noise. The instrument was calibrated in the field before starting the measurement with a noise calibrator producing a standard sound of 114 dB at 1 kHz (ATCO Noise Management Ltd., 2005)

2.2 Noise Measurement



Figure 1 Location of measurements

The locations of noise measurement spots were illustrated in Figure 1. The 24-hour equivalent noise level ($L_{eq-24\text{ hr}}$) measurement was carried out at 15 noise sources which were main components of overburden conveyors and spreaders in the West dumping area. The altitudes of the noise sources were ranged from 375, 410 430 and 445 MSL. Apart from noise source measurement, the measurement was done at Hua Fai and Suan Pa Mah Moh communities, located in the northern and the northeastern areas of the dumping site. It was also done at a reference point (410 MSL.) which lied between the noise sources and the communities. The octave band analysis was also performed at the noise sources using 1/1 and 1/3 octave band analyzers. The noise monitoring was carried out in wintertime on December, 25th, 2010 in which the worst noise

situation was likely to occur and could have potential impacts on the communities.

In each noise measurement, a meter was mounted on a stand with 1.5 meter height from the ground while the microphone was adjusted to be perpendicular to the ground surface. The measurement location was chosen to ensure that there was not any wall or other objects that might affect the sound propagation. Other measurement settings, including the monitoring period and “A”-weighting network, were specified as recommended by ISO 1996/1 – environmental noise measurement. Careful selection of measurement day was done since the meteorological condition could have high influence on the noise level. In this survey, the measurement was performed in the conditions that when wind speeds < 3 m/s, relative humidity < 70% and the measurement height < 3 ± 0.2 m from the ground.

2.3 Noise Modeling and Mapping

A mathematical model, SPM9613, was employed to simulate the sound propagation in the study domain which covered to area of 4.8 km². The basis of the model is derived from ISO 9613 Part 1(1993) and 2(1996) which use simple and empirical equations to calculate the noise levels. The ISO9613 part 2 is for the evaluation of outdoor noise propagation during meteorological condition favorable to sound propagation; downwind from the sound source with velocities between 1-5 m/s at 3-11 m above the ground (Power Acoustics, 2002). The sound propagation follows the inverse square law which states that the sound level generated from a point source with hemisphere propagation decreases by 6 decibels every double distance from the source, provided atmospheric

and ground attenuations are not counted. (Cowan,1994). The basic equation is shown in Eq. 2.1.

$$Lp(\text{downwind}) = Lw_{\text{point}} + D - A \quad (2.1)$$

Where Lw_{point} is the point source sound power level, in dB re 1 picowatt

D is the directivity indices, in dB

A is the attenuation of various effects defined by : $A = A_{\text{div}} + A_{\text{atm}} + A_{\text{ground}} + A_{\text{screen}} + A_{\text{misc}}$

A_{div} is the attenuation due to geometrical divergence

A_{atm} is the attenuation due to atmospheric absorption

A_{ground} is the attenuation due to the ground effect

A_{screen} is the attenuation due to screening

A_{misc} is the attenuation due to miscellaneous effects(propagation through industrial sites or foliage)

The inputs for the SPM-9613 model were the sound pressure levels, background noise, altitudes and topography as well as meteorological conditions. The sound levels at Huai Fai village and Suan Pa Mae Moh village predicted by the model were then compared with the measured values. A noise contour map was generated by the built-in graphical module of the software.

3. Results and Analysis

3.1 Noise Spectrums of Working Machineries

The noise spectrums of 15 working machineries are presented in Table 1. As each noise source usually has its own characteristic noise spectrum, the octave band analysis can be used to help identifying primary noise sources in the circumstances that there are simultaneous

multiple noise sources

(Cyril, 1991). As can be seen, the key octave band frequencies of noise from the transfer points and spreaders were in a range of 31.5-63 Hz whereas those from the motors and conveyors were in a range of 125-500 Hz. It is common to find that the the sound pressure levels were relatively higher at lower octave band since the noise was normally generated from large moving parts of the machineries. This low frequency noise (31.5 – 100 Hz) can travel for a long distance because it is not attenuated by the environment as efficiently as the mid and high frequency noise is. Also, the receptors often have difficulty in describing the source of their complaints and usually refer to “feeling the noise” or to “pressure sensations”. Therefore, mitigating measures should focus on the reduction of low-frequency noise generation.

The most important noise sources were the motor of conveyor line C with 97.2 dBA (L_{eq-24} hr) and the transfer point N with 93.2 dBA at a distance of 2 meters from the sources. Another significant source was the spreader N which generated noise of 90.4 dBA at a distance of 10 meters from the machine. Considering the locations of conveyors C and N which were close to the nearby villages, some measures, e.g. machine maintenance and engineering refurbishment, might be options that help mitigating the problem and lessening complaints by the communities.

Table 1 sound pressure levels of noise sources at dumping area

Noise source	Distance, m	Sound Pressure Level (dBA)								dBA
		31.5	63	125	250	500	1000	2000	4000	8000
Transfer point A	2	92.5	81.5	67.5	60.6	60.4	62	75.5	67.6	61.4
Transfer point A2	2	77.3	79.1	79.8	78.8	75.3	76.7	89	84.3	85.7
Transfer point A3	2	86.2	67.5	56.4	66.2	83.3	79.8	74.1	66.7	60.4
Transfer point B	2	67.5	66.8	62.3	64.3	63.3	64.2	70.7	71.6	67.3
Transfer point C	2	86.8	85.6	82.9	83.1	81.5	81.1	74.3	68.6	62.8
Transfer point N	2	80.1	90.1	96.7	91.5	90.5	90.1	82.7	74.7	66
Spreader A	10	75.2	77	76.5	77.4	76.7	79.1	71.4	65	58.2
Spreader B	10	81.2	82.8	79.4	78.5	76.5	73	67.4	61.4	52.8
Spreader C	10	76.4	76.4	81.1	79.9	80	78.6	71.7	66.1	58
Spreader N	10	75.7	60.2	76.9	73.8	73.5	73.5	69	66.9	57.2
Motor A	2	81.8	80.2	82.4	85	85.5	86.3	79.5	71	62.3
Motor B	2	75.9	81	87	83	86.7	80.1	69.2	61.1	55.9
Motor C	2	80.3	62.3	56.9	63.9	80.5	81.3	76.3	68.7	64.2
Motor N	2	77.5	63.5	56.3	63.7	87.3	87.2	79.3	68.1	62.2
Conveyor A	2	76.5	81.1	86.7	82.6	81.1	80.1	76	70.6	61.5

3.2 Noise Contour Map

The SPM9613 model inputs included the sound pressure levels of 15 noise sources and attenuating factors in the environment. The noise contour map was then depicted as shown in Figure 2. As can be seen, the noise sources were in a form of line sources and the high noise intensity was found in the working areas close to the sources. The conveyor A located on 445 meters from MSL generated to noise level of 70-73 dBA while the conveyor B located at 410-375 meters from MSL had the noise level in a range of 70-72 dBA. The conveyor C located at 375 meters from MSL had considerably high noise levels in a range of 68-72 dBA while the conveyor N was found to produce noise at 64-70 dBA.

The noise measurement at the reference point at the altitude of 410 meters from MSL and approximately 1.25 kilometers from the nearest noise source (conveyor N) gave the average noise level at 56 dBA. At Huai Fai village located at 1.25 kilometer from the reference point, the L_{eq-24} hr was found to be 48 dBA, lower than the level found at the reference point. It can be noticed that the decrease in the sound level with the increasing distance agrees well with the inverse square laws (Cowan, 1994). There were some noise attenuating

objects in the domain, including overburden piles, green belts, roads and other plantations, that might affect the actual noise contour.

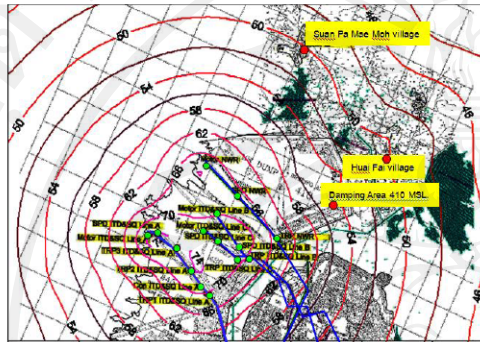


Figure 2 Existing Noise Contour

3.3 Comparison of Model Prediction and Measured Values

Table 2 shows the comparison between the model prediction and the measured values at the reference point, Huai Fai village and Suan Pa Mae Moh village. As can be seen, the differences were found to be 0.2, 0.9, and 0.5 dBA for the three locations, respectively. These minimal variances indicated that the model could predict the noise levels with high accuracy and the predictions were within the maximum acceptable uncertainty of ± 3 dB. The fairly accurate prediction was in line with the work of Parzych (2001) which indicated that SPM-9613 model can be used for prediction of environmental noise from large industrial equipment and as a diagnostic tool for use in evaluating various noise control options. Although this preliminary model result was promising, the sampling data were still limited. More data collection is required in order to fully verify the model in the circumstances of Mae Moh coal mine activities.

Table 2 Result comparison between measurement and SPM9613 modeling

Event	Source			Ref. damping Area			Huai Fai village			Suan Pa Mae Moh village		
	SPL (dB)	PWL (dB)	Diff	Measure (dB)	Prediction (dB)	Diff	Measure (dB)	Prediction (dB)	Diff	Measure (dB)	Prediction (dB)	Diff
1	97.2	96.6	0.7	42.8	46.6	0.1	40.9	51.6	0.9	40.1	39.6	0.5

4. Conclusion

The noise measurement indicated that the motors of conveyor C, transfer point of conveyor N and the spreader of conveyor N were among the highest noise generating sources. The octave band analysis showed that the machineries generated low noise frequency in a range of 31.5 – 500 Hz which could travel for a long distance and affect the nearby communities. Conveyor line C and N were found to be significant sources of noise in the study domain.

The SPM 9613 model was employed to simulate the sound propagation based on the available noise inputs and attenuating factors. The noise contour map was depicted and it showed that the noise propagation agreed well with the inverse square law. The comparison between the predicted SPL and the measured values showed that the model could deliver fairly accurate prediction with the maximum difference of 0.9 dBA. Nevertheless, the sample size was small and more data collection should be carried out in order to verify the SPM-9613 model in other circumstances.

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ประวัติผู้เขียน

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