

ILLINOIS POLLUTION CONTROL BOARD

March 2, 2006

IN THE MATTER OF: )  
)  
PROPOSED NEW AND UPDATED RULES ) R03-9  
FOR MEASUREMENT AND NUMERICAL ) (Rulemaking - Noise)  
SOUND EMISSIONS STANDARDS )  
AMENDMENTS TO 35 ILL. ADM CODE )  
901 and 910 )

Adopted Rule. Final Notice.

OPINION AND ORDER OF THE BOARD (by G.T. Girard):

Pursuant to Sections 27 and 28 of the Illinois Environmental Protection Act (Act), (415 ILCS 5/27-5/28 (2004)) and 35 Ill. Adm. Code 102.Subpart B, on February 20, 2003, the Board opened this rulemaking to propose updated regulations governing noise found in 35 Ill. Adm. Code Subtitle H. Many of the sound measurement definitions and techniques in the Board's current rules do not reflect present scientific standards. The rulemaking revises outdated numerical sound emission standards for property line noise sources found at 35 Ill. Adm. Code 901. In addition, the rulemaking adds Part 910 to the Board's rules that incorporates noise measurement techniques currently contained only in Illinois Environmental Protection Agency (Agency) rules at 35 Ill. Adm. Code 951. The Board today adopts the amendments for final notice.

**HISTORY OF NOISE RULEMAKING**

The Board's noise rules were updated in 1983 and again in 1987. In 1990, the Department of Energy and Natural Resource<sup>1</sup> (DENR) contracted Dr. Paul Schomer of the University of Illinois to examine the adequacy of Illinois noise regulations, and, particularly whether the existing rules were adequate to regulate discontinuous noise. Dr. Schomer's report, "Impulse Noise Study," (ILENR/RE-EA-90-16, printed November 1990, Springfield, IL) suggested some adjustments in the Board's noise regulations. In 1991, DENR contracted for an additional report by Dr. Schomer, entitled, "Proposed Revisions to Property Line Noise Source: Measurement Procedures", (ILENR/RE-EA-91/10, printed June 1991, Springfield, IL), describing and developing a systematic set of procedures for noise measurements.

During the summer of 1991, the Board prepared a proposal that attempted to translate the Schomer reports into regulatory language (Amendments to 35 Ill. Adm. Code Subtitle H Noise-Pertaining to Definitions, Measurement Procedures, and Sound Emission Standards Relating to Certain Noise Sources, R91-25 (Oct. 24, 1991)). An inquiry hearing based on the document was held on November 25, 1991, in Chicago. The Board's proposal was based on revising the noise measurement procedures at Section 900.103(b) and the impulsive sound standards at Section 901.104. In addition, the Board proposed incorporating Agency noise measurement procedures

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<sup>1</sup> In 1995, P.A. 89-50 (eff. July 1, 1995) (20 ILCS 5/801 *et seq.* (2004)) merged DENR into the Department of Natural Resources.

found at 35 Ill. Adm. Code 951 into Board regulations at 35 Ill. Adm. Code 910, by modifying the Part 951 language to incorporate the recommendations contained within the Schomer reports. In 1992, the Board closed the R91-25 docket before proceeding to first notice with proposed changes to the Board's noise rules.

### **PROCEDURAL BACKGROUND**

The Board opened this rulemaking by issuing a draft for public comment on February 20, 2003. The Board elicited comments on the draft prior to first-notice publication and the Board held two hearings before Hearing Officer William F. Murphy. The first hearing was held in Springfield on May 1, 2003, no members of the public attended that hearing. The second hearing (Tr.2) was held in Chicago on May 15, 2003. Joel Sternstein and Howard Chinn of the Illinois Attorney General's Office (AGO) attended the second hearing and Mr. Chinn presented testimony. During the time that the proposal was offered for public comment, the Board received two public comments, one from the AGO (PC 2) and one from Dr. Paul Schomer (PC 1).

On July 10, 2003, the Board proposed the rule for first notice. On July 25, 2003, the first notice was published in the *Illinois Register* (27 Ill. Reg. 11908). The Board received five public comments. The comments were from Scot Forge (PC 3), Vaughan and Bushnell Manufacturing (PC 4), Illinois Association of Aggregate Producers (IAAP) (PC 5), Boughton Trucking and Materials Inc. (Boughton Trucking) (PC 6) and Intermet Decatur Foundry (Intermet) (PC 7). In general, the comments requested a site-specific rule modification or requested another hearing to discuss concerns with the proposed rule.

On October 18, 2003, the Board determined that additional hearings should be held. After holding an additional hearing, the Board determined on March 4, 2004, that administrative economy supported including site-specific changes in a new first notice. Because of this decision, the Board withdrew the first notice (*see* 28 Ill. Reg. 7341, 7342 (May 21, 2004)).

The Board held two hearings before Board Hearing Officer Marie Tipsord. The third hearing (Tr.3) was held February 10, 2004, in Chicago. At that hearing, Mr. John P. McGillivray testified on behalf of Scot-Forge Company and Howard Chinn testified on behalf of the AGO. The fourth hearing (Tr.4) was held November 4, 2004, in Springfield. Mr. John Henriksen and Dane Tittman testified on behalf of the IAAP.

The Board received six additional comments during the second phase of hearings. The comments were from Moline Forge (PC 8), Intermet (PC 9) IAAP (PC 10), the AGO (PC 11), Village of Bridgeview (Bridgeview) (PC 12), and the Illinois Department of Natural Resources (DNR) (PC 13).

On March 17, 2005, the Board proceeded to a second first notice with this rulemaking. That first notice was published in the *Illinois Register* on April 15, 2005 (29 Ill. Reg. 5196). The Board held an additional hearing on September 1, 2005 (Tr. 5) and at that hearing Mr. Henriksen again testified along with Mr. Willard Pierce of Evenson Explosives, LLC on behalf of IAAP. Also Mr. Jim Hafliger of the DNR testified. The public comment period closed on October 17,

2005, and the Board received six additional comments during the 2005 first-notice period. Those comments are:

PC 14	Joseph R. Angleton, Office Director, Office of Mines and Minerals, Illinois Department of Natural Resources
PC 15	John Henriksen, Executive Director, Illinois Association of Aggregate Producers
PC 16	Dr. Paul Schomer, Schomer and Associates, Inc.
PC 17	Therese M. Dorigan, Bradburne, Briller & Johnson, LLC
PC 18	Village of Bridgeview
PC 19	Dr. Paul Schomer, on behalf of Village of Bridgeview

On January 19, 2006, the Board proposed for second notice the rulemaking, making changes suggested by the comments received. The Joint Committee on Administrative Rules (JCAR) considered the rulemaking at the February 14, 2006 JCAR meeting. JCAR voted to issue a certification of no objection to the rules at that meeting. In this opinion and order the Board adopts for final notice the rulemaking with minor changes recommended by JCAR.

### **SUMMARY OF FIRST-NOTICE ACTION BY THE BOARD**

The participants in this rulemaking raised a number issues concerning the proposed amendments after the publication of the first-notice opinion and order on July 10, 2003 (Proposed New and Updated Rules for Measurement and Numerical Sound Emissions Standards; Amendments to 35 Ill. Adm. Code 901 and 910, R03-9 (July 10, 1003)). These issues concerned the qualification of sound monitoring personnel, sound measurement procedures for establishing nuisance noise violation, numerical noise standard for highly impulsive sound from blasting operations as it applies to aggregate industry, and forging industry site-specific regulations. The Board reviewed the comments and at first notice made changes to the proposal in response. Proposed New and Updated Rules for Measurement and Numerical Sound Emissions Standards; Amendments to 35 Ill. Adm. Code 901 and 910, R03-9 (Mar. 17, 2005). The following is a summary of the Board's findings.

Regarding sound measurement procedures for establishing nuisance noise violations, the Board stated:

Section 910.104 clarifies that sound pressure level measurements are not required to establish a violation of the Board's nuisance noise standard at Section 900.102, although such measurements may be used as corroborating evidence. In light of this, the Board finds that compliance with the detailed sound measurement procedures set forth in Part 951 or the proposed Part 910 are not required for sound measurements used as corroborating evidence in a nuisance noise proceeding. The Board will assign appropriate weight to sound measurement data submitted in any nuisance noise complaint based on the information in the hearing

record and in accordance with the provisions of the Act. As noted in the first first-notice opinion (Proposed New and Updated Rules for Measurement and Numerical Sound Emissions Standards; Amendments to 35 Ill. Adm. Code 901 and 910, R03-9 (July 10, 1003)), the Board believes that this approach is consistent with the Board's precedence and case law concerning nuisance noise complaints. The Board declines to make the changes suggested by IAAP. R03-9, (Mar. 17, 2005).

Regarding the qualification of sound monitoring personnel, the Board stated:

The commenters raise a valid concern regarding the qualifications of personnel conducting sound monitoring to show compliance with the noise standards set forth at 35 Ill. Adm. Code 900 and 901. The Board recognizes that based on the complexity of the instrumentation used and the nature of the sound source, the validity of sound measurement data depends on the training and experience of the personnel in current techniques and principles of sound measurement. In this regard, the Board routinely determines the validity of sound measurement data in noise enforcement cases based on the qualifications of the person conducting sound measurement. In making such determinations, the Board relies on sworn expert testimony and a comprehensive record developed through a public hearing process.

The Board finds that the present regulatory structure, where the Board determines the validity of sound data on a case-by-case basis in noise enforcement cases, is a more prudent approach than prescribing vague qualification requirements. The Board believes this is especially true absent a State approved licensing or certification process. R03-9, (Mar. 17, 2005).

The Board addressed the applicability of the rules to the aggregate mines in Illinois and made changes to the rule to ensure consistency between the Board's rules and the rules of the DNR. R03-9, (Mar. 17, 2005). The Board also proposed for first notice changes to site-specific rules for certain foundries in Illinois. *Id.*

### **SUMMARY OF SECOND-NOTICE ACTION**

The Board received six comments along with testimony at the September 1, 2005 hearing regarding the Board's 2005 first-notice proposal. Three main issues were raised in those comments and testimony. First, the applicability of the rules to aggregate producers was again raised. Second the issue of qualifications of sound monitoring personnel was brought up. Finally the issue of sound measurement procedures for establishing nuisance noise violations was raised.

The Board amended the rule in response to the comments and testimony concerning the applicability of the rules to aggregate producers. The Board proposed language which exempts blasting operations by aggregate producers from the Board's regulations and defers regulations of such noise to DNR.

As to the issue of qualification of sound monitoring personnel, the Board reiterated the position taken at first notice and stated that: “the Board is not persuaded that requiring certification . . . is appropriate. The Board will continue to review the noise emission measurements on a case-by-case basis and make determination based on the evidence provided.” Proposed New and Updated Rules for Measurement and Numerical Sound Emissions Standards; Amendments to 35 Ill. Adm. Code 901 and 910, R03-9, (Jan. 19, 2006).

Finally on the issue of noise measurements in nuisance noise cases, the Board stated:

The Board has long held in that noise measurements may be used to substantiate or refute a nuisance noise claim. *See* Discovery South Group v. PCB, 275 Ill. App. 3d 547, 549, 656 N.E.2d 51, 59 (1st Dist. 1995); Charter Hall Home Owners Association v. Overland Transportation System PCB 98-81 (Oct. 1, 1998); Pawlowski v. Benchwarmers Pub, PCB 99-82 (Apr. 6, 2000); Gladys Knox and David Knox v. Turriss Coal Company and AEI Resources, Inc., PCB 00-140 (Jan. 9, 2003).

\* \* \*

The Board has carefully reviewed the arguments and concerns expressed by Bridgeview and Dr. Schomer. However, the Board is unconvinced that a change to the rule is necessary. First, as to the suggestion that the Board require compliance with Part 910 for measurement of noise emissions in a nuisance noise enforcement, the Board does not believe that change is necessary. If a complainant complies with the requirements of Part 910 when alleging a violation, then such a violation would be of the numeric standards and not a nuisance violation. The Board has long heard testimony in nuisance noise enforcement cases concerning the use of noise measurements. The Board examines that testimony and the measurements in light of the entirety of the evidence and renders a decision as to whether the noise unreasonably interferes with the enjoyment of life. *See e.g.*, Zivoli v. Somebody’s Bar and Restaurant, PCB 90-200 (May 21, 1992). Therefore, the Board declines to make a change to the rule. *Id.*

### **DISCUSSION**

The Board finds that the rule is economically reasonable and technically feasible. The record supports the Board’s adoption of these rules and the Board adopts the rules today. The Board will now summarize the rule language as adopted today.

#### **35 Ill. Adm. Code 910: Measurement Procedures for the Enforcement of 35 Ill. Adm. Code 900 and 901**

The new Part 910 sets forth the measurement procedures for enforcing the Board’s noise standards in Parts 900 and 901. These procedures are essentially based upon the Agency’s noise measurement protocols at 35 Ill. Adm. Code 951. The Board has made a number of substantive

changes to the Agency's measurement protocols to reflect the recommendations of the DNR's noise reports. A brief description of the proposed procedures is provided below.

**Section 910.100**      **General**

This Section sets forth the scope of the proposed noise measurement procedures and techniques. The Board has deleted references to "Agency personnel," since the measurement procedures are applicable to any person conducting noise measurements to demonstrate compliance with Parts 900 and 901.

**Section 910.101**      **Personnel Qualification**

The Board decided not to incorporate the Agency's personnel qualification requirements in the instant proposal since they are specific to Agency personnel, and also because the requirements are not based on any State approved licensing or certification.

**Section 910.102**      **Instrumentation**

This section sets forth the requirements for sound measuring equipment, sound indicating devices such as magnetic tape recorder or graphic level recorder, and weather measuring instruments. These requirements are the same as those in Part 951, except for the updated references to the American National Standards Institute (ANSI), and the International Electrotechnical Commission (IEC) standards. *See* changes at Section 910.102(a).

**Section 910.103**      **Definitions**

The Board has moved all pertinent definitions found in the Agency's regulations to 35 Ill. Adm. Code 900.103, which contains the definitions applicable to the Board's noise regulations.

**Section 910.104**      **Measurement Techniques for 35 Ill. Adm. Code 900**

This section clarifies that while sound pressure level measurements are not required to establish a violation of the Board's nuisance noise standard at 35 Ill. Adm. Code 900.102, such measurements may be used as corroborating evidence. In this regard, the proposal requires a person conducting sound measurements to comply with the instructions of the sound measurement equipment manufacturer. Further, Section 910.104 sets forth that the measurement techniques proposed at Section 910.105 may be used as guidance. While this approach deviates from the detailed sound measurement requirements specified in Part 951, the Board believes that the proposed approach is consistent with the Board's precedence and case law concerning nuisance noise complaints.

**Section 910.105**      **Measurement Techniques for 35 Ill. Adm. Code 901**

The measurement techniques for obtaining sound pressure levels to demonstrate compliance with Part 901 standards are essentially the same as the Agency's regulations, except for the deletion of measurement procedures for steady sound, fluctuating sound, intermittent

sound, impulsive sound, and quasi steady sound set forth at Sections 910.105(d)(3) through (d)(7), respectively. The Board notes that these measurement procedures are addressed by the measurement techniques for highly-impulsive sound set forth at Section 910.107.

**Section 910.106**      **Protocols for Determination of Sound Levels**

This section sets forth a systematic set of procedures for determination of equivalent sound level ( $L_{eq}$ ) using as an example the determination of a 1-hour  $L_{eq}$  corrected for background ambient sound. The proposed protocols are based on the recommendations of the DENR's noise study entitled "Proposed Revisions to Property Line Noise Source: Measurement Procedures." These protocols prescribe detailed data collection requirements, and equations for averaging sound data on an energy basis. In addition, Section 910.106 prescribes procedures correcting the raw equivalent sound level for background ambient sound. The proposal also prescribes detailed procedures for measuring background ambient sound that include both direct measurement methods and the use of Tables of long-term background ambient.

**Section 910.107**      **Measurement Techniques for Highly-Impulsive Sound under 35 Ill. Adm. Code 901.104**

Two equally valid methods are proposed for measuring highly-impulsive sound. The first method, termed the "General Method" at Section 901.107(b), provides for A-weighted  $L_{eq}$  measurement using the procedures set forth in Sections 910.105 and 910.106. The second method, which is referred to as the "Controlled Test Method" at Section 910.107(c), involves the determination of total sound exposure per hour. Again, the Board notes that the protocols are based on the DENR's noise study.

**35 Ill. Adm. Code 901: Sound Emission Standards and Limitations for Property Line-Noise-Sources**

The changes to Part 901 replace the existing Standard Land Use Coding Manual (SLUCM) based land classification, and revise the impulsive sound standards. A brief description of the proposed changes is provided below.

**Section 901.101**      **Classification of Land According to Use**

The changes to this section update the existing land use classification, which is based on SLUCM codes, with the Land-Based Classification Standards (LBCS) codes. The Board notes that the LBCS, which replaced the 1965 SLUCM, provides a consistent model for classifying land uses based on a multi-dimensional land use classification model. While the LBCS provides for classification of land use based on activity, function, structure type, site development character, and ownership, the Board is proposing to update the SLUCM codes with the LBCS function codes. In this regard, the Board believes that the LBCS functional categories are very similar to the SLUCM categories listed in the existing regulations at Part 901, Appendix B.

Consistent with the changes to Section 901.101, the instant proposal also replaces the SLUCM Codes Table in Part 901, Appendix B with the LBCS function codes. For more detailed

information concerning the LBCS, the Board directs interested persons to review the LBCS executive summary or visit the LBCS web page ([www.planning.org/LBCS](http://www.planning.org/LBCS)).

**Section 901.104**      **Highly-Impulsive Sound**

The changes to Section 901.104 clarify that the impulsive sound standards are based on 1-hour A-weighted equivalent sound levels, and revise the numeric standards. The revisions to the numeric limits for highly-impulsive sound are based on the recommendations of the DENR's Impulse Noise Study. These revisions are intended to bring highly impulsive noise standards into conformity with the standards set forth in Sections 901.102 and 901.103 in terms of the effective community response.

**Section 901.107**      **Exceptions**

The changes to Section 901.107 exempt blasting activities from aggregate and surface coal mines from regulation under Part 901. These activities must be regulated by IDNR pursuant to Section 605 of the Surface-Mined Land Conservation and Reclamation Act (225 ILCS 715/6.5 (2004) and Section 3.13 of the Surface Coal Mining Land Conservation and Reclamation Act (225 ILCS 720/3.13 (2004)). The Board corrected citations in this section in response to an agreement with JCAR.

**CONCLUSION**

The Board adopts the proposal for final notice pursuant to the Illinois Administrative Procedures Act (5 ILCS 100/5-5 *et seq.* (2004)). The Board finds that rule is technically reasonable and economically feasible and that the record supports the adoption of these rules.

**ORDER**

The Board directs the Clerk to cause the filing of the following rule with the Secretary of State for publication as an adopted rule in the *Illinois Register*:

TITLE 35: ENVIRONMENTAL PROTECTION  
SUBTITLE H: NOISE  
CHAPTER I: POLLUTION CONTROL BOARD

PART 901  
SOUND EMISSION STANDARDS AND LIMITATIONS FOR PROPERTY LINE-NOISE-SOURCES

Section	
901.101	Classification of Land According to Use
901.102	Sound Emitted to Class A Land
901.103	Sound Emitted to Class B Land
901.104	<u>Highly - Impulsive Sound</u>
901.105	Impact Forging Operations



901.106	Prominent Discrete Tones
901.107	Exceptions
901.108	Compliance Dates for Part 901
901.109	<u>Highly</u> - Impulsive Sound from Explosive Blasting
901.110	Amforge Operational Level
901.111	Modern Drop Forge Operational Level
901.112	Wyman-Gordon Operational Level
901.113	Wagner Casting Site-Specific Operational Level <u>(Repealed)</u>
901.114	Moline Forge Operational Level
901.115	Cornell Forge Hampshire Division Site-Specific Operational Level
901.116	Forgings and Stampings, Inc. Operational Level
901.117	Rockford Drop Forge Company Operational Level
901.118	<del>Atlas Forgings Division of Scot Forge Company – Franklin Park</del> <u>Division Operational Level</u>
901.119	Clifford-Jacobs Operational Level
901.120	C.S. Norcross Operational Level
901.121	Vaughan & Bushnell Operational Level

APPENDIX A Old Rule Numbers Referenced

APPENDIX B Land-Based Classification Standards and Corresponding 35 Ill. Adm. Code 901 Land Classes ~~Standard Land Use Coding System~~

AUTHORITY: Implementing Section 25 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/25 and 27].

SOURCE: Originally filed as Part 2 of Chapter 8: Noise Pollution, effective August 10, 1973; amended at 2 Ill. Reg. 27, p. 223, effective June 26, 1978; amended at 5 Ill. Reg. 6371, effective June 1, 1981; amended at 5 Ill. Reg. 8533, effective August 10, 1981; amended at 6 Ill. Reg. 10960, effective September 1, 1982; codified at 7 Ill. Reg. 13646; amended at 7 Ill. Reg. 14519, effective October 17, 1983; amended in R83-35 at 8 Ill. Reg. 18893, effective September 25, 1984; amended in R83-33, 26, 29, 30 and R83-34 at 9 Ill. Reg. 1405, effective January 17, 1985; Section 901.105(f)(1), (2) and (3) recodified to Sections 901.110, 901.111 and 901.112 at 9 Ill. Reg. 7147; amended in R83-25, 31 and 32 at 9 Ill. Reg. 7149, effective May 7, 1985; amended in R83-7 at 11 Ill. Reg. 3136, effective January 28, 1987; amended in R04-11, at 28 Ill. Reg. 11910, effective July 30, 2004; amended in R03-9 at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

Section 901.101 Classification of Land According to Use

- a) The land use classification system used for the purposes of applying numeric sound standards for this Part is based on the Land-Based Classification Standards (LBCS) (Jeer, Sanjay. 2001. Land-Based Classification Standards . Online, <http://www.planning.org/LBCS>. American Planning Association: Chicago, Illinois). The LBCS applicable to this Part is set forth in Appendix B.

- b) a) Class A land ~~includes shall include~~ all land used as specified by LBCS Codes 1000 through 1340, 2410 through 2455, 5200 through 5230, 5500, 6100 through 6145, 6222, 6510 through 6530, 6568 through 6600, SLUCM Codes 110 through 190 inclusive, 651, 674, 681 through 683 inclusive, 691, 711, 762, 7121, 7122, 7123 and 921.
- c) b) Class B land ~~includes shall include~~ all land used as specified by LBCS Codes 2100 through 2336, 2500 through 2720, 3500 through 3600, 4220 through 4243, 5100 through 5160, 5300 through 5390, 5400, 6147, 6210 through 6221, 6300 through 6320, 6400 through 6430, 6560 through 6567, 6700 through 6830, 7100 through 7380. SLUCM Codes 397, 471 through 479 inclusive, 511 through 599 inclusive, 611 through 649 inclusive, 652 through 673 inclusive, 675, 692, 699, 7124, 7129, 719, 721, 722 except 7223, 723 through 761 inclusive except 7311, 769 through 790 inclusive, and 922.
- d) e) Class C land ~~includes shall include~~ all land used as specified by LBCS Codes 3100 through 3440, 4120 through 4180, 4210 through 4212, 4300 through 4347, 7400 through 7450, 8000 through 8500, and 9100 through 9520. SLUCM Codes 211 through 299 inclusive, 311 through 396 inclusive, 399, 411 except 4111, 412 except 4121, 421, 422, 429, 441, 449, 460, 481 through 499 inclusive, 7223 and 7311 used for automobile and motorcycle racing, and 811 through 890 inclusive.
- e) d) A parcel or tract of land used as specified by LBCS SLUCM Code 9100, 9400, or 5500 ~~81, 83, 91, or 922~~, when adjacent to Class B or C land may be classified similarly by action of a municipal government having zoning jurisdiction over such land. Notwithstanding any subsequent changes in actual land use, land so classified ~~retains shall retain~~ such B or C classification until the municipal government removes the classification adopted by it.

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.102      Sound Emitted to Class A Land

- a) Except as elsewhere provided in this Part ~~provided~~, no person shall cause or allow the emission of sound during daytime hours from any property-line-noise-source located on any Class A, B or C land to any receiving Class A land which exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within such receiving Class A land, provided, however, that no measurement of sound pressure levels shall be made less than 25 feet from such property-line-noise-source.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from		
	Class C Land	Class B Land	Class A Land

31.5	75	72	72
63	74	71	71
125	69	65	65
250	64	57	57
500	58	51	51
1000	52	45	45
2000	47	39	39
4000	43	34	34
8000	40	32	32

- b) Except as provided elsewhere in this Part ~~provided~~, no person shall cause or allow the emission of sound during nighttime hours from any property-line-noise-source located on any Class A, B or C land to any receiving Class A land which exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within such receiving Class A land, provided, however, that no measurement of sound pressure levels shall be made less than 25 feet from such property-line-noise-source.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class A Land from		
	Class C Land	Class B Land	Class A Land
31.5	69	63	63
63	67	61	61
125	62	55	55
250	54	47	47
500	47	40	40
1000	41	35	35
2000	36	30	30
4000	32	25	25
8000	32	25	25

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.103      Sound Emitted to Class B Land

Except as provided elsewhere in this Part ~~provided~~, no person shall cause or allow the emission of sound from any property-line-noise-source located on any Class A, B or C land to any receiving Class B land which exceeds any allowable octave band sound pressure level specified in the following table, when measured at any point within such receiving Class B land, provided, however, that no measurement of sound pressure levels shall be made less than 25 feet from such property-line-noise-source.

Octave Band Center Frequency (Hertz)	Allowable Octave Band Sound Pressure Levels (dB) of Sound Emitted to any Receiving Class B Land from		
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	Class C Land	Class B Land	Class A Land
31.5	80	79	72
63	79	78	71
125	74	72	65
250	69	64	57
500	63	58	51
1000	57	52	45
2000	52	46	39
4000	48	41	34
8000	45	39	32

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.104 Highly-Impulsive Sound

Except as provided elsewhere in this Part ~~provided~~, no person shall cause or allow the emission of highly-impulsive sound from any property-line-noise-source located on any Class A, B, or C land to any receiving Class A or B land which exceeds the allowable A-weighted sound levels, measured with fast dynamic characteristic, specified in the following table when measured in accordance with the procedure of 35 Ill. Adm. Code 900.103 at any point within such receiving Class A or B land, provided, however, that no measurement of sound levels shall be made less than 25 feet from such property-line-noise-source.

Classification of Land on which Property-Line Noise-Source: is Located	Allowable A-weighted Sound Levels in Decibels of <u>Highly-Impulsive Sound</u> Emitted to Receiving Class A or B Land		
	Class B Land	Class A Land	
		Daytime	Nighttime
Class A Land	<del>50</del> <u>47</u>	<del>50</del> <u>47</u>	<del>45</del> <u>37</u>
Class B Land	<del>57</del> <u>54</u>	<del>50</del> <u>47</u>	<del>45</del> <u>37</u>
Class C Land	<del>61</del> <u>58</u>	<del>56</del> <u>53</u>	46 43

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.105 Impact Forging Operations

- a) For purposes of this Section, ~~rule~~ only the following are applicable:
  - 1) Daytime hours means ~~shall mean~~ any continuous 16-hour period between 6:00 a.m. and 11:00 p.m. local time; and

- 2) Nighttime hours ~~means shall mean~~ those 8 hours between 10:00 p.m. and 7:00 a.m. which are not part of the 16 continuous daytime hours.
  - 3) The reference time for  $L_{eq}$ , as defined in 35 Ill. Adm. Code 900.101 is one hour.
  - 4) New Impacting Forging Operation is that property-line-noise-source comprised of impact forging operation on which construction began after September 1, 1982.
  - 5) Existing Impact Forging Operation is that property-line-noise-source comprised of impact forging operations which are in existence on September 1, 1982,
- b) Emission Limitations for New Impact Forging Operation.  
 No impact forging operation shall cause or allow the emission of impulsive sound to any receiving Class A or B land which exceeds the allowable sound levels specified in the following table when measured at any point within such receiving land, provided however, that no measurement of sound levels shall be made less than 25 feet from such new impact forging operation's property-line.

Allowable Highly- Impulsive Sound Levels ( $L_{eq}$ ) in Decibels Emitted  
 To Class A or B Land from New  
 Impact Forging Operation

Class B Land	Class A Land	
	Daytime	Nighttime
59.5 $L_{eq}$	53.5 $L_{eq}$	48.5 $L_{eq}$

- c) Limitations for Existing Impact Forging Operation
- No existing impact forging operation shall cause or allow the emission of highly-impulsive sound to any receiving Class A or B land which exceeds the allowable sound levels specified in the following table, when measured at any point within such receiving land, provided however, that no measurement of sound levels shall be made less than 25 feet from such existing impact forging operation's property-line, unless such forging operation is granted a permanent site specific allowable operational level pursuant to subsection subparagraph (d).

Allowable Highly- Impulsive Sound Levels ( $L_{eq}$ ) in Decibels Emitted  
 To Class A or B Land from Existing  
 Impact Forging Operation

Class B Land	Class A Land
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	Daytime	Nighttime
64.5 Leq	58.5 Leq	53.5 Leq

- d) Site Specific Allowable Operational Level for Existing Impact Forging Operation
- 1) An existing impact forging operation which does not comply with subsection subparagraph (c) may seek a permanent site specific allowable operational level from the Board. A permanent site specific level is that level of operation allowed petitioner after review and approval by the Board and after implementation of abatement ~~abated~~ measures, if any, approved by the Board.
  - 2) Any existing impact forging operation seeking a permanent site specific operational level must submit as its petition the following:
    - A) The location of the petitioner, a description of the surrounding community, and a map locating the petitioner within the community;
    - B) A description of the petitioner's operations, the number and size of the petitioner's forging hammers, the current hours of hammer operation, the approximate number of forgings manufactured during each of the three prior calendar years and the approximate number of hammer blows used to manufacture the forgings.
    - C) A description of any existing sound abatement measure.
    - D) The sound levels in excess of those permitted by subsection subparagraph (c) emitted by the petitioner into the community, in 5 decibel increments measured in L<sub>eq</sub> ~~L<sub>eq</sub>~~, shown on the map of the community.
    - E) The number of residences exposed to sound levels in excess of those permitted by subsection subparagraph (c);
    - F) A description of other significant sources of noise (mobile and stationary) and their location shown on the map of the community;
    - G) A description of the proposed operational level and proposed physical abatement measures, if any, a schedule for their implementation and their costs;
    - H) The predicted improvement in community sound levels as a result of implementation of the proposed abatement measures; and

I) A description of the economic and technical considerations which justify the permanent site specific allowable operational level sought by petitioner.

~~3) An existing impact forging operation seeking a permanent site specific operational level shall prepare and file its petition with the Board and Agency as applicable no later than December 1, 1983.~~

~~4) The Agency shall prepare a written evaluation regarding each petition seeking a permanent site specific operational level and shall file said evaluation within ninety (90) days following receipt of the petition with both the Board and the petitioner.~~

e) Land Use Classifications Preserved

The land use classifications in effect within a one-mile radius of an existing impact forging operation on September 1, 1982 ~~remains shall remain~~ the applicable land use classification for enforcement of these rules against an existing forging operation and any future modification thereof, regardless of actual subsequent changes in land use unless such actual changes would impose less restrictive limitations on the impact forging operations.

f) Site-Specific Operational Levels

Each individual existing forging operation identified in Sections 901.110, 901.111 and 901.112 must comply with the site-specific operational level defined, or is otherwise subject to Section 901.105(c).

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 901.106 Prominent Discrete Tones

- a) No person shall cause or allow the emission of any prominent discrete tone from any property-line-noise-source located on any Class A, B or C land to any receiving Class A, B or C land, provided, however, that no measurement of one-third octave band sound pressure levels shall be made less than 25 feet from such property-line source.
- b) This rule shall not apply to prominent discrete tones having a one-third octave band sound pressure level 10 or more dB below the allowable octave band sound pressure level specified in ~~the applicable tables in~~ Sections 901.102 through 901.104 for the octave band which contains such one-third octave band. In the application of this sub-section, the applicable numeric standard table for sound emitted from any existing property-line-noise-source to receiving Class A land, for both daytime and nighttime operations, ~~is shall be~~ found in Section 901.102(a).

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.107 Exceptions

- a) Sections 901.102 through 901.106 inclusive ~~does shall~~ not apply to sound emitted from land used as specified by LBCS Codes 1100, 6600 and 5500 ~~SLUCM Codes 110, 140, 190, 691, and 742 except 7424 and 7425.~~
- b) Sections 901.102 through 901.106 inclusive ~~does shall~~ not apply to sound emitted from emergency warning devices and unregulated safety relief valves.
- c) Sections 901.102 through 901.106 inclusive ~~does shall~~ not apply to sound emitted from lawn care maintenance equipment and agricultural field machinery used during daytime hours. For the purposes of this sub-section, grain dryers operated off the farm ~~are shall~~ not be considered agricultural field machinery.
- d) Sections 901.102 through 901.106 inclusive ~~do shall~~ not apply to sound emitted from equipment being used for construction.
- e) Section 901.102(b) ~~do shall~~ not apply to sound emitted from existing property-line-noise-sources during nighttime hours, provided, however, that sound emitted from such existing property-line-noise-sources ~~are shall be~~ governed during nighttime hours by the limits specified in Section 901.102.
- f) Sections 901.102 through 901.106 inclusive ~~do shall~~ not apply to the operation of any vehicle registered for highway use while such vehicle is being operated within any land used as specified by Section 901.101 in the course of ingress to or egress from a highway.
- g) Sections 901.102 through 901.106 inclusive ~~do shall~~ not apply to sound emitted from land used as specified by LBCS Codes 5130 and 5140 ~~SLUCM Codes 7223 and 7314~~ when used for automobile and motorcycle racing; and, any land used for contests, rallies, time trials, test runs or similar operations of any self-propelled device, and upon or by which any person is or may be transported or drawn, when such self-propelled device is actually being used for sport or recreation and is actually participating in an activity or event organized, regulated, and supervised under the sponsorship and sanction of a club, organization or corporation having national or statewide recognition; provided, however, that the exceptions granted in this subsection ~~subparagraph~~ ~~do shall~~ not apply to any automobile and motorcycle race, contest, rally, time trial, test run or similar operation of any self-propelled device if such event is started between the hours of 10:30 p.m. to 7:00 a.m., local time weekdays, or between the hours of 11:00 p.m. and 7:00 a.m., local time, weekend days.
- h) Section 901.104 shall not apply to impulsive sound produced by explosive blasting activities conducted on any Class C land other than the land used as



specified by LBCS Codes 8300 and 8500 ~~SLUCN codes 852 and 854~~, but such operations shall be governed by Section 901.109.

- i) Part 901 shall not apply to impulsive sound produced by explosive blasting activities, which are:
- 1) Conducted on any Class C land used as specified by LBCS Codes 8300 and 8500; and
  - 2) Regulated by the Department of Natural Resources in accordance with Section 6.5 of the Surface-Mined Land Conservation and Reclamation Act [225 ILCS 715/6.5] and Section 3.13 of the Surface Coal Mining Land Conservation and Reclamation Act [225 ILCS 720/3.13].
- ji) Sections 901.102 through 901.106 inclusive, ~~do shall~~ not apply to sound emitted from snowmobiles.

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 901.108 Compliance Dates for Part 901

- a) Except as provided in ~~subsections~~ ~~subparagraphs~~ (g), (i), and (j), every owner or operator of a new property-line-noise-source ~~must shall~~ comply with the standards and limitations of this Part on and after August 10, 1973.
- b) Except as otherwise provided in this rule, every owner or operator of an existing property-line-noise-source ~~must shall~~ comply with the standards and limitations of this Part on and August 10, 1974.
- c) Every owner or operator of an existing property-line-noise-source who emits sound which exceeds any allowable octave band sound pressure level of Section 901.102 or 901.103 by 10 dB or more in any octave band with a center frequency of 31.5 Hertz, 63 Hertz or 125 Hertz ~~must shall~~ comply with the standards and limitations of this Part on and after February 10, 1975.
- d) Except as provided in ~~subsections~~ ~~subparagraphs~~ (g) and (h), every owner or operator of an existing property-line-noise-source required to comply with Section 901.104 ~~must shall~~ comply with the standards and limitations of this Part on and after February 10, 1975.
- e) Every owner or operator of an existing property-line-noise-source required to comply with Section 901.106 ~~must shall~~ comply with the standards and limitations of this Part on and after February 10, 1975.
- f) ~~Repealed~~

- f)g) Every owner or operator of Class C land now and hereafter used as specified by LBCS Code 4120 ~~SLUCM Code 4112~~ shall will have until August 10, 1976 to bring the sound from railroad car coupling in compliance with Section 901.104.
- g)h) Existing impact forging operations as defined in Section 901.105 which do not seek permanent site specific allowable operational levels must shall comply with Section 901.105 by December 1, 1983. Those seeking permanent site specific allowable operational levels pursuant to Section 901.105(d) must shall comply as of the effective date of the site specific rule granted or denied.
- h)i) Every owner or operator of Class C land now or hereafter used as specified by LBCS Code 3310 ~~SLUCM Code 291~~ must shall comply with the standards and limitations of this Part on August 10, 1975.
- i)j) Every owner or operator of Class C land now or hereafter used as specified by LBCS Code 5130 and 5140 ~~SLUCM Code 7223 and 7314~~ when used for automobile and motorcycle racing shall must comply with the standards and limitations of this Part on February 10, 1976.

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.109      Highly-Impulsive Sound From Explosive Blasting

- a) During the daytime hours that cover the period after sunrise and before sunset, no person shall cause or allow any explosive blasting conducted on any Class C land other than land used as specified by LBCS Codes 8300 and 8500 ~~SLUCM Codes 852 and 854~~ so as to allow the emission of sound to any receiving Class A or B land which exceeds the allowable outdoor C-weighted sound levels, measured with the slow dynamic characteristic, specified in the following table, when measured at any point, of reasonable interference with the use of such receiving Class A or B land.

Allowable Outdoor C-Weighted  
Sound Exposure Levels in Decibels of Explosive  
Blasting Sounds Emitted to Receiving  
Class A or B Land from Any Class C Land other than Land  
Used as Specified by LBCS Code 8300 or 8500 ~~SLUCM Code 852 or 854~~

Receiving Class A Land  
~~109-107~~

Receiving Class B Land  
~~114-112~~

The allowable sound exposure level limits in the above table must be lowered by three decibels (3 dB) for each doubling of the number of blasts during the day or night.

- b) Compliance with outdoor peak sound pressure level limits in the following table shall constitute prima facie level limits of this rule when measured on such receiving Class A or B land.

Equivalent Maximum Sound Pressure Level (Peak) Limits in Decibels

Lower Frequency Limit of Measuring System for Flat Response, a Variation from Linear Response of + or - 3dB (Hz)	Receiving Class A Land (dB)	Receiving Class B Land (dB)
<del>≤ 0.1</del>	<del>135</del>	140
≤ 2.0 but > 0.1	133 <del>2</del>	<u>133</u> <del>7</del>
<del>≤ 6.0 but greater than 2.0</del>	<del>130</del>	<del>135</del>

~~The allowable equivalent maximum sound pressure level limits in the above table shall be lowered by two decibels (2 dB) for each doubling of the number of blasts during the day or night.~~

- c) During the period defined by both the beginning of the nighttime hours (10:00 pm) or sunset, whichever occurs earlier, and the ending of the nighttime hours (7:00 am) or after sunset and before sunrise, whichever occurs later, the allowable sound level limits in subsections ~~subparagraphs~~ (a) and (b) must ~~shall~~ be reduced by 10 decibels ~~decibles~~ except in emergency situations where rain, lightning, other atmospheric conditions, or operator or public safety requires unscheduled nighttime hour explosive blasting.
- d) Persons causing or allowing explosive blasting to be conducted on any Class C land other than land used as specified by LBCS Code 8300 or 8500 ~~SLUCM code 852 or 854~~ must ~~shall~~ notify the local public of such blasting prior to its occurrence, except when emergency situations require unscheduled blasting, by publication of a blasting schedule, identifying the work days or dates and time periods when explosives are expected to be detonated, at least every three months in a newspaper of general circulation in the locality of the blast site.

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.110 Amforge Operational Level

Amforge Division of Rockwell International located at 119th Street, Chicago, Illinois must ~~shall~~:

- a) Operate only ten forging hammers at any one time; ~~and~~

- b) Operation of its forging hammers is limited to the hours of 7:00 a.m. through 11:00 p.m., with occasional operations beginning at 6:00 a.m. and ending at midnight, Monday through Saturdays; and
- c) ~~Install sound~~ Sound absorptive materials ~~shall be installed~~ on each of the forging hammer structures as each is routinely overhauled, but no later than January 1, 1987.

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.111 Modern Drop Forge Operational Level

Modern Drop Forge Company located at 139th Street and Western Avenue in Blue Island, Illinois ~~must~~ shall:

- a) Operate only twenty-one forging hammers at any one time; and
- b) Operate its forging hammers only during the hours of 6:00 a.m. through midnight, Mondays through Fridays, and 6:30 a.m. until 7:30 p.m. on Saturdays.

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.113 Wagner Casting Site-Specific Operational Level (~~Repealed~~)

~~Wagner Casting Company and future owners of the forging facility located at the southeast corner of Sangamon and Jasper Streets in Decatur, Illinois, must comply with the following site-specific operational level or are otherwise subject to Section 901.105(c):~~

- ~~a) Shall operate no more than nine forging hammers at any one time; and~~
- ~~b) Shall operate its forging hammers only between the hours of 5:00 a.m. Monday through 9:00 p.m. Saturday.~~

(Source: Repealed at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.118 ~~Atlas Forgings Division of Scot Forge Company~~ Franklin Park Division Operational Level

~~Atlas Forge Division of Scot Forge and future owners of the forging facility located at 9394 W. Belmont Avenue, Franklin Park 1501 South 55th Court, Cicero, Illinois, must~~ shall comply with the following site-specific operational level:

- a) Operate no more than ~~seven~~ three forging hammers at any one time; and

- b) Operate its forging hammers only between the hours of 6:00 a.m. and 6:00 p.m. Monday through Saturday.

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.121 Vaughan & Bushnell Operational Level

Vaughan & Bushnell Manufacturing Company and the future owners of the forging facility located at the intersection of Davis and Main Streets, Bushnell, Illinois, ~~must~~ shall comply with the following site-specific operational level:

- a) Operate no more than ten hammers at any one time; and
- b) Operate its forging hammers only between the hours of 6:00 a.m. and 1:30 ~~a.m.~~ ~~p.m.~~ Monday through Saturday.

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 901.APPENDIX B Land-Based Classification Standards and Corresponding 35 Ill. Adm. Code 901 Land Classes ~~Standard Land Use Coding System~~

<b>LBCS</b>		<b>Description</b>	<b>35 IAC 901 Land Class</b>
<b>Main Category</b>	<b>Function Code</b>		
<b>Residence or accommodation functions</b>	<b>1000</b>	<u>Residence or accommodation functions</u>	<b>A</b>
	<b>1100</b>	<u>Private household</u>	
	<b>1200</b>	<u>Housing services for the elderly</u>	
	1210	<u>Retirement housing services</u>	
	1220	<u>Congregate living services</u>	
	1230	<u>Assisted-living services</u>	
	1240	<u>Life care or continuing care services</u>	
	1250	<u>Skilled-nursing services</u>	
	<b>1300</b>	<u>Hotels, motels, or other accommodation services</u>	
	1310	<u>Bed and breakfast inn</u>	
	1320	<u>Rooming and boarding</u>	↓
	1330	<u>Hotel, motel, or tourist court</u>	
	1340	<u>Casino hotel</u>	<b>A</b>
<b>2000</b>	<u>General sales or services</u>		

<u>LBCS</u>		<u>Description</u>	<u>35 IAC 901 Land Class</u>
<u>Main Category</u>	<u>Function Code</u>		
	<u>2100</u>	<u>Retail sales or service</u>	<u>B</u>
	<u>2110</u>	<u>Automobile sales or service establishment</u>	
	<u>2111</u>	<u>Car dealer</u>	
	<u>2112</u>	<u>Bus, truck, mobile homes, or large vehicles</u>	
	<u>2113</u>	<u>Bicycle, motorcycle, ATV, etc.</u>	
	<u>2114</u>	<u>Boat or marine craft dealer</u>	
	<u>2115</u>	<u>Parts, accessories, or tires</u>	
	<u>2116</u>	<u>Gasoline service</u>	
	<u>2120</u>	<u>Heavy consumer goods sales or service</u>	
	<u>2121</u>	<u>Furniture or home furnishings</u>	
	<u>2122</u>	<u>Hardware, home centers, etc.</u>	
	<u>2123</u>	<u>Lawn and garden supplies</u>	
	<u>2124</u>	<u>Department store, warehouse club or superstore</u>	
	<u>2125</u>	<u>Electronics and Appliances</u>	
	<u>2126</u>	<u>Lumber yard and building materials</u>	
	<u>2127</u>	<u>Heating and plumbing equipment</u>	
	<u>2130</u>	<u>Durable consumer goods sales and service</u>	
	<u>2131</u>	<u>Computer and software</u>	
	<u>2132</u>	<u>Camera and photographic supplies</u>	
	<u>2133</u>	<u>Clothing, jewelry, luggage, shoes, etc.</u>	
	<u>2134</u>	<u>Sporting goods, toy and hobby, and musical instruments</u>	
	<u>2135</u>	<u>Books, magazines, music, stationery</u>	
	<u>2140</u>	<u>Consumer goods, other</u>	
	<u>2141</u>	<u>Florist</u>	
	<u>2142</u>	<u>Art dealers, supplies, sales and service</u>	
	<u>2143</u>	<u>Tobacco or tobacconist establishment</u>	
	<u>2144</u>	<u>Mail order or direct selling establishment</u>	
	<u>2145</u>	<u>Antique shops, flea markets, etc.</u>	
	<u>2150</u>	<u>Grocery, food, beverage, dairy, etc.</u>	
	<u>2151</u>	<u>Grocery store, supermarket, or bakery</u>	
	<u>2152</u>	<u>Convenience store</u>	
	<u>2153</u>	<u>Specialty food store</u>	
	<u>2154</u>	<u>Fruit and vegetable store</u>	
	<u>2155</u>	<u>Beer, wine, and liquor store</u>	

<u>LBCS</u>		<u>Description</u>	<u>35 IAC 901 Land Class</u>
<u>Main Category</u>	<u>Function Code</u>		
	<u>2160</u>	<u>Health and personal care</u>	
	<u>2161</u>	<u>Pharmacy or drug store</u>	
	<u>2162</u>	<u>Cosmetic and beauty supplies</u>	
	<u>2163</u>	<u>Optical</u>	
	<b><u>2200</u></b>	<u>Finance and Insurance</u>	
	<u>2210</u>	<u>Bank, credit union, or savings institution</u>	
	<u>2220</u>	<u>Credit and finance establishment</u>	
	<u>2230</u>	<u>Investment banking, securities, and brokerages</u>	
	<u>2240</u>	<u>Insurance-related establishment</u>	
	<u>2250</u>	<u>Fund, trust, or other financial establishment</u>	
	<b><u>2300</u></b>	<u>Real estate, and rental and leasing</u>	
	<u>2310</u>	<u>Real estate services</u>	
	<u>2320</u>	<u>Property management services</u>	
	<u>2321</u>	<u>Commercial property-related</u>	
	<u>2322</u>	<u>Rental housing-related</u>	
	<u>2330</u>	<u>Rental and leasing</u>	
	<u>2331</u>	<u>Cars</u>	
	<u>2332</u>	<u>Leasing trucks, trailers, RVs, etc.</u>	
	<u>2333</u>	<u>Recreational goods rental</u>	
	<u>2334</u>	<u>Leasing commercial, industrial machinery, and equipment</u>	
	<u>2335</u>	<u>Consumer goods rental</u>	
	<u>2336</u>	<u>Intellectual property rental (video, music, software, etc.)</u>	<b>B</b>
	<b><u>2400</u></b>	<u>Business, professional, scientific, and technical services</u>	
	<u>2410</u>	<u>Professional services</u>	<b>A</b>
	<u>2411</u>	<u>Legal services</u>	
	<u>2412</u>	<u>Accounting, tax, bookkeeping, payroll services</u>	
	<u>2413</u>	<u>Architectural, engineering, and related services</u>	
	<u>2414</u>	<u>Graphic, industrial, interior design services</u>	
	<u>2415</u>	<u>Consulting services (management, environmental, etc.)</u>	
	<u>2416</u>	<u>Research and development services (scientific, etc.)</u>	
	<u>2417</u>	<u>Advertising, media, and photography services</u>	
	<u>2418</u>	<u>Veterinary services</u>	
	<u>2420</u>	<u>Administrative services</u>	
	<u>2421</u>	<u>Office and administrative services</u>	
	<u>2422</u>	<u>Facilities support services</u>	

<b>LBCS</b>		<b>Description</b>	<b>35 IAC 901 Land Class</b>
<b>Main Category</b>	<b>Function Code</b>		
	<u>2423</u>	<u>Employment agency</u>	
	<u>2424</u>	<u>Business support services</u>	
	<u>2425</u>	<u>Collection agency</u>	
	<u>2430</u>	<u>Travel arrangement and reservation services</u>	
	<u>2440</u>	<u>Investigation and security services</u>	
	<u>2450</u>	<u>Services to buildings and dwellings</u>	
	<u>2451</u>	<u>Extermination and pest control</u>	
	<u>2452</u>	<u>Janitorial</u>	
	<u>2453</u>	<u>Landscaping</u>	↓
	<u>2454</u>	<u>Carpet and upholstery cleaning</u>	
	<u>2455</u>	<u>Packing, crating, and convention and trade show services</u>	<b>A</b>
	<b><u>2500</u></b>	<u>Food services</u>	<b>B</b>
	<u>2510</u>	<u>Full-service restaurant</u>	
	<u>2520</u>	<u>Cafeteria or limited service restaurant</u>	
	<u>2530</u>	<u>Snack or nonalcoholic bar</u>	
	<u>2540</u>	<u>Bar or drinking place</u>	
	<u>2550</u>	<u>Mobile food services</u>	
	<u>2560</u>	<u>Caterer</u>	
	<u>2570</u>	<u>Food service contractor</u>	
	<u>2580</u>	<u>Vending machine operator</u>	
	<b><u>2600</u></b>	<u>Personal services</u>	
	<b><u>2700</u></b>	<u>Pet and animal sales or service (except veterinary)</u>	↓
	<u>2710</u>	<u>Pet or pet supply store</u>	
	<u>2720</u>	<u>Animal and pet services</u>	<b>B</b>
<u>Manufacturing and wholesale trade</u>	<b><u>3000</u></b>	<u>Manufacturing and wholesale trade</u>	
	<b><u>3100</u></b>	<u>Food, textiles, and related products</u>	<b>C</b>
	<u>3110</u>	<u>Food and beverages</u>	
	<u>3120</u>	<u>Tobacco manufacturing establishment</u>	
	<u>3130</u>	<u>Textiles</u>	
	<u>3140</u>	<u>Leather and allied products</u>	
	<b><u>3200</u></b>	<u>Wood, paper, and printing products</u>	
	<u>3210</u>	<u>Wood products establishment</u>	
	<u>3220</u>	<u>Paper and printing materials</u>	
	<u>3230</u>	<u>Furniture and related products</u>	



<b>LBCS</b>		<b>Description</b>	<b>35 IAC 901 Land Class</b>
<b>Main Category</b>	<b>Function Code</b>		
	<b>3300</b>	<u>Chemicals, and metals, machinery, and electronics manufacturing</u>	
	3310	<u>Petroleum and coal products</u>	
	3320	<u>Chemicals, plastics, and rubber products</u>	
	3330	<u>Nonmetallic mineral products</u>	
	3340	<u>Primary metal manufacturing</u>	
	3350	<u>Machinery manufacturing</u>	
	3360	<u>Electrical equipment, appliance, and components manufacturing</u>	
	3370	<u>Transportation equipment, automobiles, etc.</u>	
	<b>3400</b>	<u>Miscellaneous manufacturing</u>	
	3410	<u>Jewelry and silverware</u>	
	3420	<u>Dolls, toys, games, and musical instruments</u>	↓
	3430	<u>Office supplies, inks, etc.</u>	
	3440	<u>Signs</u>	<b>C</b>
	<b>3500</b>	<u>Wholesale trade establishment</u>	<b>B</b>
	3510	<u>Durable goods</u>	
	3520	<u>Nondurable goods</u>	↓
	<b>3600</b>	<u>Warehouse and storage services</u>	<b>B</b>
<u>Transportation, communication, information, and utilities</u>	<b>4000</b>	<u>Transportation, communication, information, and utilities</u>	
	<b>4100</b>	<u>Transportation services</u>	
	4110	<u>Air transportation</u>	<b>U</b>
	4111	<u>Air passenger transportation</u>	
	4112	<u>Air freight transportation</u>	
	4113	<u>Airport and support establishment</u>	↓
	4114	<u>Aircraft and accessories</u>	
	4115	<u>Other air transportation (including scenic, balloon, etc.)</u>	<b>U</b>
	4120	<u>Rail transportation</u>	<b>C</b>
	4121	<u>Rail passenger transportation</u>	
	4122	<u>Rail freight transportation</u>	
	4123	<u>Rail transportation support establishment</u>	
	4130	<u>Road, ground passenger, and transit transportation</u>	
	4131	<u>Local transit systems-mixed mode</u>	
4132	<u>Local transit systems-commuter rail</u>		

<b>LBCS</b>		<b><u>Description</u></b>	<b><u>35 IAC 901 Land Class</u></b>
<b><u>Main Category</u></b>	<b><u>Function Code</u></b>		
	<u>4133</u>	<u>Local transit systems-bus, special needs, and other motor vehicles</u>	
	<u>4134</u>	<u>Interurban, charter bus, and other similar establishments</u>	
	<u>4135</u>	<u>School and employee bus transportation</u>	
	<u>4136</u>	<u>Special purpose transit transportation (including scenic, sightseeing, etc.)</u>	
	<u>4137</u>	<u>Taxi and limousine service</u>	
	<u>4138</u>	<u>Towing and other road and ground services</u>	
	<u>4140</u>	<u>Truck and freight transportation services</u>	
	<u>4141</u>	<u>General freight trucking, local</u>	
	<u>4142</u>	<u>General freight trucking, long-distance</u>	
	<u>4143</u>	<u>Freight trucking, specialized (used household and office goods)</u>	
	<u>4144</u>	<u>Freight trucking, specialized (except used goods)</u>	
	<u>4150</u>	<u>Marine and water transportation</u>	
	<u>4151</u>	<u>Marine passenger transportation</u>	
	<u>4152</u>	<u>Marine freight transportation</u>	
	<u>4153</u>	<u>Marine port and harbor operations</u>	
	<u>4154</u>	<u>Marine cargo handling and dry dock services</u>	
	<u>4155</u>	<u>Marine navigational and other services</u>	
	<u>4160</u>	<u>Courier and messenger services</u>	↓
	<u>4170</u>	<u>Postal services</u>	↓
	<u>4180</u>	<u>Pipeline transportation</u>	<b>C</b>
	<b><u>4200</u></b>	<b><u>Communications and information</u></b>	
	<u>4210</u>	<u>Publishing</u>	<b>C</b>
	<u>4211</u>	<u>Newspapers, books, periodicals, etc.</u>	<b>C</b>
	<u>4212</u>	<u>Software publisher</u>	<b>C</b>
	<u>4220</u>	<u>Motion pictures and sound recording</u>	<b>B</b>
	<u>4221</u>	<u>Motion picture and video production, publishing, and distribution</u>	
	<u>4222</u>	<u>Motion picture viewing and exhibition services</u>	
	<u>4223</u>	<u>Sound recording, production, publishing, and distribution</u>	
	<u>4230</u>	<u>Telecommunications and broadcasting</u>	
	<u>4231</u>	<u>Radio and television broadcasting</u>	
	<u>4232</u>	<u>Cable networks and distribution</u>	

<b>LBCS</b>		<b>Description</b>	<b>35 IAC 901 Land Class</b>
<b>Main Category</b>	<b>Function Code</b>		
	4233	<u>Wireless telecommunications</u>	
	4234	<u>Telephone and other wired telecommunications</u>	
	4240	<u>Information services and data processing industries</u>	
	4241	<u>Online information services</u>	↓
	4242	<u>Libraries and archives</u>	
	4243	<u>News syndicate</u>	<b>B</b>
	<b>4300</b>	<u>Utilities and utility services</u>	<b>C</b>
	4310	<u>Electric power</u>	
	4311	<u>Hydroelectric</u>	
	4312	<u>Fossil</u>	
	4313	<u>Nuclear</u>	
	4314	<u>Alternative energy sources</u>	
	4320	<u>Natural gas, petroleum, fuels, etc.</u>	
	4330	<u>Water, steam, air conditioning supply</u>	
	4331	<u>Drinking water</u>	
	4332	<u>Irrigation and industrial water supply</u>	
	4333	<u>Air conditioning and steam supply</u>	
	4340	<u>Sewer, solid waste, and related services</u>	
	4341	<u>Hazardous waste collection</u>	
	4342	<u>Hazardous waste treatment and disposal</u>	
	4343	<u>Solid waste collection</u>	
	4344	<u>Solid waste combustor or incinerator</u>	
	4345	<u>Solid waste landfill</u>	
	4346	<u>Waste treatment and disposal</u>	↓
	4347	<u>Septic tank and related services</u>	<b>C</b>
<u>Arts, entertainment, and recreation</u>	<b>5000</b>	<u>Arts, entertainment, and recreation</u>	
	<b>5100</b>	<u>Performing arts or supporting establishment</u>	<b>B</b>
	5110	<u>Theater, dance, or music establishment</u>	
	5120	<u>Sports team or club</u>	
	5130	<u>Racetrack establishment</u>	
	5140	<u>Promoter of performing arts, sports, and similar events</u>	↓
	5150	<u>Agent for management services</u>	
	5160	<u>Independent artist, writer, or performer</u>	<b>B</b>
	<b>5200</b>	<u>Museums and other special purpose recreational institutions</u>	<b>A</b>

<b>LBCS</b>		<b>Description</b>	<b>35 IAC 901 Land Class</b>
<b>Main Category</b>	<b>Function Code</b>		
	<u>5210</u>	<u>Museum</u>	
	<u>5220</u>	<u>Historical or archeological institution</u>	↓
	<u>5230</u>	<u>Zoos, botanical gardens, arboreta, etc.</u>	<u>A</u>
	<b>5300</b>	<u>Amusement, sports, or recreation establishment</u>	<u>B</u>
	<u>5310</u>	<u>Amusement or theme park establishment</u>	
	<u>5320</u>	<u>Games arcade establishment</u>	
	<u>5330</u>	<u>Casino or gambling establishment</u>	↓
	<u>5340</u>	<u>Miniature golf establishment</u>	↓
	<u>5350</u>	<u>Skiing</u>	↓
	<u>5360</u>	<u>Marina or yachting club facility operators</u>	↓
	<u>5370</u>	<u>Fitness, recreational sports, gym, or athletic club,</u>	↓
	<u>5380</u>	<u>Bowling, billiards, pool, etc.</u>	↓
	<u>5390</u>	<u>Skating rinks, roller skates, etc.</u>	
	<b>5400</b>	<u>Camps, camping, and related establishments</u>	<u>B</u>
	<b>5500</b>	<u>Natural and other recreational parks</u>	<u>A</u>
<u>Education, public admin., health care, and other inst.</u>	<b>6000</b>	<u>Education, public admin., health care, and other inst.</u>	
	<b>6100</b>	<u>Educational services</u>	
	<u>6110</u>	<u>Nursery and preschool</u>	<u>A</u>
	<u>6120</u>	<u>Grade schools</u>	
	<u>6121</u>	<u>Elementary</u>	
	<u>6122</u>	<u>Middle</u>	↓
	<u>6123</u>	<u>Senior</u>	↓
	<u>6124</u>	<u>Continuance</u>	↓
	<u>6125</u>	<u>Alternate education services</u>	↓
	<u>6126</u>	<u>Adult education services</u>	↓
	<u>6130</u>	<u>Colleges and universities</u>	↓
	<u>6140</u>	<u>Technical, trade, and other specialty schools</u>	↓
	<u>6141</u>	<u>Beauty schools</u>	↓
	<u>6142</u>	<u>Business management</u>	↓
	<u>6143</u>	<u>Computer training</u>	↓
	<u>6144</u>	<u>Driving education</u>	↓
	<u>6145</u>	<u>Fine and performing arts education</u>	<u>A</u>
	<u>6146</u>	<u>Flight training</u>	<u>U</u>
<u>6147</u>	<u>Sports and recreation education</u>	<u>B</u>	

<b>LBCS</b>		<b><u>Description</u></b>	<b><u>35 IAC 901 Land Class</u></b>
<b><u>Main Category</u></b>	<b><u>Function Code</u></b>		
	<b><u>6200</u></b>	<u>Public administration</u>	
	6210	<u>Legislative and executive functions</u>	<b><u>B</u></b>
	6220	<u>Judicial functions</u>	<b><u>B</u></b>
	6221	<u>Courts</u>	<b><u>B</u></b>
	6222	<u>Correctional institutions</u>	<b><u>A</u></b>
	<b><u>6300</u></b>	<u>Other government functions</u>	<b><u>B</u></b>
	6310	<u>Military and national security</u>	
	6320	<u>Space research and technology</u>	
	<b><u>6400</u></b>	<u>Public Safety</u>	
	6410	<u>Fire and rescue</u>	↓
	6420	<u>Police</u>	
	6430	<u>Emergency response</u>	<b><u>B</u></b>
	<b><u>6500</u></b>	<u>Health and human services</u>	
	6510	<u>Ambulatory or outpatient care services</u>	<b><u>A</u></b>
	6511	<u>Clinics</u>	
	6512	<u>Family planning and outpatient care centers</u>	
	6513	<u>Medical and diagnostic laboratories</u>	
	6514	<u>Blood and organ banks</u>	↓
	6520	<u>Nursing, supervision, and other rehabilitative services</u>	
	6530	<u>Hospital</u>	<b><u>A</u></b>
	6560	<u>Social assistance, welfare, and charitable services</u>	<b><u>B</u></b>
	6561	<u>Child and youth services</u>	
	6562	<u>Child day care</u>	
	6563	<u>Community food services</u>	
	6564	<u>Emergency and relief services</u>	
	6565	<u>Other family services</u>	↓
	6566	<u>Services for elderly and disabled</u>	
	6567	<u>Veterans affairs</u>	<b><u>B</u></b>
	6568	<u>Vocational rehabilitation</u>	<b><u>A</u></b>
	<b><u>6600</u></b>	<u>Religious institutions</u>	<b><u>A</u></b>
	<b><u>6700</u></b>	<u>Death care services</u>	<b><u>B</u></b>
	6710	<u>Funeral homes and services</u>	
	6720	<u>Cremation services and cemeteries</u>	
	<b><u>6800</u></b>	<u>Associations, nonprofit organizations, etc.</u>	
	6810	<u>Labor and political organizations</u>	

<b>LBCS</b>		<b>Description</b>	<b>35 IAC 901 Land Class</b>
<b>Main Category</b>	<b>Function Code</b>		
	<u>6820</u>	<u>Business associations and professional membership organizations</u>	↓
	<u>6830</u>	<u>Civic, social, and fraternal organizations</u>	<b>B</b>
<u>Construction-related businesses</u>	<b>7000</b>	<u>Construction-related businesses</u>	
	<b>7100</b>	<u>Building, developing, and general contracting</u>	<b>B</b>
	<u>7110</u>	<u>Residential construction</u>	
	<u>7120</u>	<u>Land development and subdivision</u>	
	<u>7130</u>	<u>Industrial, commercial and institutional building construction</u>	↓
	<b>7200</b>	<u>Machinery related</u>	↓
	<u>7210</u>	<u>Building equipment and machinery installation contractors</u>	↓
	<u>7220</u>	<u>Excavation contractor</u>	↓
	<u>7230</u>	<u>Water well drilling contractor</u>	↓
	<u>7240</u>	<u>Wrecking and demolition establishment</u>	↓
	<u>7250</u>	<u>Structural steel erection contractor</u>	↓
	<b>7300</b>	<u>Special trade contractor</u>	↓
	<u>7310</u>	<u>Carpentry, floor, and tile contractor</u>	↓
	<u>7320</u>	<u>Concrete contractor</u>	↓
	<u>7330</u>	<u>Electrical contractor</u>	↓
	<u>7340</u>	<u>Glass and glazing contractor</u>	↓
	<u>7350</u>	<u>Masonry and drywall contractors</u>	↓
	<u>7360</u>	<u>Painting and wall covering</u>	↓
	<u>7370</u>	<u>Plumbing, heating, and air-conditioning</u>	↓
	<u>7380</u>	<u>Roofing, siding, and sheet metal contractors</u>	<b>B</b>
<b>7400</b>	<u>Heavy construction</u>	<b>C</b>	
<u>7410</u>	<u>Highway and street construction;</u>		
<u>7420</u>	<u>Bridge and tunnel construction</u>		
<u>7430</u>	<u>Water, sewer, and pipeline construction</u>	↓	
<u>7440</u>	<u>Power lines, communication and transmission lines</u>		
<u>7450</u>	<u>Industrial and other nonbuilding construction</u>	<b>C</b>	
<u>Mining and extraction establishments</u>	<b>8000</b>	<u>Mining and extraction establishments</u>	<b>C</b>
	<b>8100</b>	<u>Oil and natural gas</u>	
	<b>8200</b>	<u>Metals (iron, copper, etc.)</u>	
	<b>8300</b>	<u>Coal</u>	↓
	<b>8400</b>	<u>Nonmetallic mining</u>	

<b>LBCS</b>		<b><u>Description</u></b>	<b><u>35 IAC 901 Land Class</u></b>
<b><u>Main Category</u></b>	<b><u>Function Code</u></b>		
	<b><u>8500</u></b>	<u>Quarrying and stone cutting establishment</u>	<b><u>C</u></b>
<u>Agriculture, forestry, fishing and hunting</u>	<b><u>9000</u></b>	<u>Agriculture, forestry, fishing and hunting</u>	<b><u>C</u></b>
	<b><u>9100</u></b>	<u>Crop production</u>	
	<u>9110</u>	<u>Grain and oilseed</u>	
	<u>9111</u>	<u>Wheat</u>	
	<u>9112</u>	<u>Corn</u>	
	<u>9113</u>	<u>Rice</u>	
	<u>9114</u>	<u>Soybean and oilseed</u>	
	<u>9115</u>	<u>Dry pea and bean</u>	
	<u>9120</u>	<u>Vegetable farming or growing services</u>	
	<u>9130</u>	<u>Fruits and trees</u>	
	<u>9140</u>	<u>Greenhouse, nursery, and floriculture</u>	
	<u>9141</u>	<u>Food crops grown under cover</u>	
	<u>9142</u>	<u>Nursery and tree production</u>	
	<u>9143</u>	<u>Floriculture production</u>	
	<u>9150</u>	<u>All other crops</u>	
	<u>9151</u>	<u>Tobacco crop</u>	
	<u>9152</u>	<u>Cotton crop</u>	
	<u>9153</u>	<u>Sugarcane crop</u>	
	<u>9154</u>	<u>Hay</u>	
	<u>9155</u>	<u>Peanut crop</u>	
	<b><u>9200</u></b>	<u>Support functions for agriculture</u>	
	<u>9210</u>	<u>Farm and farm labor management services</u>	
	<u>9220</u>	<u>Spraying, dusting, and other related services</u>	
	<u>9230</u>	<u>Crop harvesting and post harvest crop activities (including drying, siloing, etc.)</u>	
	<u>9240</u>	<u>Cotton ginning, grist milling, etc.</u>	
	<b><u>9300</u></b>	<u>Animal production including slaughter</u>	
	<u>9310</u>	<u>Cattle ranch and crops</u>	
<u>9311</u>	<u>Beef cattle ranch establishments</u>		
<u>9312</u>	<u>Cattle feedlot establishment</u>		
<u>9320</u>	<u>Dairy cattle and milk production</u>		
<u>9330</u>	<u>Hog and pig farm</u>		
<u>9340</u>	<u>Poultry and egg production and hatcheries</u>		

<b>LBCS</b>		<b>Description</b>	<b>35 IAC 901 Land Class</b>
<b>Main Category</b>	<b>Function Code</b>		
	9350	<u>Sheep and goat farming establishments</u>	
	9360	<u>Fish hatcheries, fisheries, and aquaculture</u>	
	9370	<u>All other animal production</u>	
	9371	<u>Apiculture (bees, wax, and related operations)</u>	
	9372	<u>Horse and equine production</u>	
	9373	<u>Fur-bearing animal production</u>	
	9380	<u>Support functions for animal production</u>	
	<b>9400</b>	<u>Forestry and Logging</u>	
	9410	<u>Logging</u>	
	9420	<u>Forest nurseries</u>	
	9430	<u>Support functions for forestry</u>	
	<b>9500</b>	<u>Fishing, hunting and trapping, game preserves</u>	
	9510	<u>Fishing</u>	↓
	9520	<u>Hunting and trapping, game retreats, game and fishing preserves</u>	<b>C</b>
	<b>9900</b>	<u>Unclassifiable function</u>	<b>U</b>
	9910	<u>Not applicable to this dimension</u>	
	9990	<u>To be determined</u>	↓
	9999	<u>To be determined</u>	<b>U</b>

**APPENDIX B**

**STANDARD LAND USE CODING SYSTEM**

— U.S. Department of Transportation  
 Federal Highway Administration  
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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO-, THREE-, AND FOUR-DIGIT**

**LEVELS**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>1</sup>	Land Use Classification <sup>2</sup>
11	Household units.	110	Household units.	1100	Household units.		



12	Group quarters.	121	Rooming and boarding houses.	1210	Rooming and boarding houses. <sup>3</sup>	7021
		122	Membership lodgings.	1221	Fraternity and sorority houses.	<sup>4</sup> Incl. 7041
				1229	Other membership lodgings, NEC. <sup>5</sup>	Incl. 7041
		123	Residence halls or dormitories.	1231	Nurses' homes.	
				1232	College dormitories.	
				1239	Other residence halls or dormitories, NEC.	
		124	Retirement homes and orphan-ages.	1241	Retirement homes.	
				1242	Orphanages.	
		125	Religious quarters.	1251	Convents.	
				1252	Monasteries.	
				1253	Rectories.	
				1259	Other religious quarters, NEC.	
		129	Other group quarters, NEC.	1290	Other group quarters, NEC.	
13	Residential hotels.	130	Residential hotels.	1300	Residential hotels. <sup>6</sup>	Incl. 7011
14	Mobile home parks or courts.	140	Mobile home parks or courts.	1400	Mobile home parks or courts.	7031
15	Transient lodgings.	151	Hotels, tourist courts, and motels.	1510	Hotels, tourist courts, and motels.	7011
		159	Other transient lodgings, NEC.	1590	Other transient lodgings, NEC. <sup>7</sup>	
19	Other residential, NEC.	190	Other residential, NEC.	1900	Other residential, NEC.	

**FOOTNOTES**

<sup>1</sup>The SIC codes are listed for purposes of reference. They are those that have codes in the SIC system that most nearly correspond to the 4 digit and not re-land use activity indicated. (See ch. III, Sec. A3, "The Use of Standard 5 and Industrial Classification Nomenclature.") A dash indicates that there is no corresponding SIC code.

<sup>2</sup>Code 1100 "Household units" are defined as a house, and apartment, or other group of rooms, or a single room that is intended for categories of establish-occupancy as separate living quarters. Occupants of "Household units" do not live and eat with other persons in the structure (such as in a boarding house), and there is either (1) direct access from the percent or outside or through a common hall, or (2) there is a kitchen or cooking permanent guests equipment for the exclusive use of the occupants of the unit. The less than occupants may be a family, a group of unrelated persons, or a person lodgings." living alone. Mobile homes not in "Mobile home parks or courts" such estab-(code 14), but resting on a permanent type of foundation (e.g., a brick percent or or concrete block foundation) are included as well as units that are associated activities vacant or that are used on a seasonal basis. Farm homes are also in occupied by

<sup>3</sup>Code 1210 "Rooming and boarding houses" are 5 or more persons renting rooms, with or without board, related to the had or person in charge. Where there are less roomers, the total quarters are considered as one "Household unit" and is coded 1100.

<sup>4</sup>"Incl. 7041" is an abbreviation which indicates that the 4 digit land use activity category is only one of several categories that are included under SIC code 7041.

<sup>5</sup>"NEC" is an abbreviation for "not elsewhere coded."

<sup>6</sup>Code 1300 "Residential hotels" are those that have 75 percent or more of the available accommodations occupied by (i.e., persons who reside more than 30 days). Hotels with 75 percent are included under code 15, "Transient lodgings."

<sup>7</sup>Code 1590 "Other transient lodgings, NEC" includes establishments as the YMCA, YWCA, and YMHA when 50 percent or more of the floor area is devoted to lodging and and when less than 75 percent of the accommodations are occupied by

cluded under "household units" and should be identified separately permanent guests. If 75 percent or more of the guests are permanent, from the remainder of the farm which is coded under "Agriculture," use code 1300. If 50 percent or more of the floor area is devoted to recreational activity, use code 7424, "Recreation centers (general)."

\*"Land Class" refers to Rule 201 Classifications. "A" denotes a Class A Land, "B" denotes a Class B Land and "C" denotes a Class C Land. "U" denotes a Land unclassified in rule 201. (Added by IEPA.)

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>†</sup>	Land Class
21	Food and kindred products manufacturing.	211	Meat products manufacturing.	2111	Meat packing manufacturing.	2011	
				2112	Sausages and other prepared meat products manufacturing.	2013	
				2113	Poultry and small game dressing and packing.	2015	
		212	Dairy products manufacturing.	2121	Creamery butter manufacturing.	2021	
				2122	Cheese, natural and processed.	2022	
				2123	Condensed and evaporated milk manufacturing.	2023	
				2124	Ice cream and frozen desserts manufacturing.	2024	
				2125	Fluid milk processing.	2026	
		213	Canning and preserving of fruits, vegetables, and seafoods.	2131	Canning and curing seafoods.	2031	
				2132	Canning specialty foods.	2032	
				2133	Canning fruits, vegetables, preserves, jams, and jellies.	2033	
				2134	Drying and dehydrating fruits and vegetables.	2034	
				2135	Pickling fruits and vegetables; vegetable sauces and seasonings; salad dressings manufacturing.	2035	
				2136	Fresh or frozen packaged fish and seafoods.	2036	
				2137	Frozen fruits, fruit juices, vegetables, and specialties.	2037	
		214	Grain mill products manufacturing.	2141	Flour and other grain mill products.	2041	
				2142	Preparing feeds for animals and fowls.	2042	
				2143	Cereal preparations.	2043	
				2144	Rice milling.	2044	
				2145	Blending and preparing flour.	2045	
				2146	Wet corn milling.	2046	
		215	Bakery products manufacturing.	2150	Bakery products manufacturing.	205	
		216	Sugar manufacturing.	2160	Sugar manufacturing.	206	
		217	Confectionery and related products manufacturing.	2171	Candy and other confectionery products manufacturing.	2071	

		2172	Chocolate and cocoa products manufacturing.	2072
		2173	Chewing gum manufacturing.	2073
218	Beverage manufacturing.	2181	Malt liquors manufacturing.	2082
		2182	Malt manufacturing.	2083
		2183	Wine, brandy, and brandy spirits manufacturing.	2084
		2184	Distilling, rectifying, and blending liquors.	2085
		2185	Bottling and canning soft drinks and carbonated waters.	2086
		2186	Flavor extracts and flavoring sirups manufacturing, NEC.	2087
219	Other food preparations and kindred products manufacturing, NEC.	2191	Cottonseed oil milling.	2091
		2192	Soybean oil milling.	2092
		2193	Vegetable oil milling (except cotton seed and soybean).	2093
		2194	Animal and marine fats and oils (including grease and tallow) manufacturing.	2094
		2195	Roasting coffee and coffee products manufacturing.	2095
		2196	Shortening, table oils, margarine, and other edible fats and oils manufacturing.	2096
		2197	Ice manufacturing.	2097
		2198	Macaroni, spaghetti, vermicelli, and noodles manufacturing.	2098
		2199	Other food preparations and kindred products manufacturing, NEC.	2099

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>1</sup>	Land Use Code
22	Textile mill products manufacturing.	221	Broad and narrow woven fabrics and other small wares (cotton, manmade fibers, silk, and wool) manufacturing.	2210	Broad and narrow woven fabrics and other small wares (cotton, manmade fibers, silk, and wool) manufacturing.	221,222,223 <sup>9</sup> and 224	
		222	Knit goods manufacturing.	2220	Knit goods manufacturing.	225	
		223	Dyeing and finishing of textiles (except wool fabrics and knit goods).	2230	Dyeing and finishing of textiles (except wool fabrics and knit goods).	226	
		224	Floor coverings (rugs and carpets) manufacturing.	2240	Floor coverings (rugs and carpets) manufacturing.	227	
		225	Yarns and threads manufacturing.	2250	Yarns and threads manufacturing.	228	
		229	Other textile goods manufacturing.	2291	Felt goods (except woven felts and	2291	

	NEC.		hats) manufacturing.	
		2292	Lace Goods manufacturing.	2292
		2293	Padding and upholstery filling manufacturing.	2293
		2294	Processing waste and recovering fibers and flock.	2294
		2295	Artificial leather and oil cloth manufacturing and other impregnating and coating fabrics (except rubberizing).	2295
		2296	Tire cording and fabric manufacturing.	2296
		2297	Wool scouring, worsted combing, and towing to top.	2297
		2299	Other textile goods manufacturing.	2299
			NEC.	
23	Apparel and other finished products made from fabrics, leather, and similar materials manufacturing.	231	Men's, youths' and boys' suits, coats, and overcoats manufacturing.	2310
			Men's, youth's, and boys' suits, coats, and overcoats manufacturing.	231
		232	Men's, youths', and boys' furnishings, work clothing, and allied garments manufacturing.	2320
			Men's, youths', and boys' furnishings, work clothing, and allied garments manufacturing.	232
		233	Women's, misses', juniors', girls', children's, and infants' outerwear manufacturing.	2330
			Women's, misses', juniors', girls', children's, and infants' outerwear manufacturing.	233 and 236
		234	Women's, misses', children's, and infants' undergarments manufacturing.	2340
			Women's, misses', children's, and infants' undergarments manufacturing.	234
		235	Hats, caps, and millinery manufacturing.	2350
			Hats, caps, and millinery manufacturing.	235
		236	Leather and leather products manufacturing.	2361
			Leather tanning and finishing.	3111
			Industrial leather belting and packing manufacturing.	3121
			Boot and shoe cut stock and findings manufacturing.	3131
			Footwear (except rubber) manufacturing.	314
			Leather gloves and mittens manufacturing.	315
			Luggage manufacturing.	316
			Handbags and other personal leather goods manufacturing.	317
			Other leather products manufacturing.	319
			NEC.	
		237	Fur goods manufacturing.	2370
			Fur goods manufacturing.	237

## LEVELS—Continued

Code	Category	Code	Category	Code	Category	SIC Reference <sup>†</sup>	La Cl
23	Apparel and other finished products made from fabrics, leather, and similar materials manufacturing.	238	Miscellaneous apparel and accessories manufacturing.	2381	Dress and work gloves (except knit and all leather) manufacturing.	2381	
	Continued			2382	Robes and dressing gowns manufacturing.	2384	
				2383	Raincoats and other waterproof outer garments manufacturing.	2385	
				2384	Leather and sheep lined clothing manufacturing.	2386	
				2385	Apparel belts manufacturing.	2387	
				2389	Other miscellaneous apparel and accessory manufacturing, NEC.	2389	
		239	Other fabricated textile products manufacturing, NEC.	2391	Curtains and draperies manufacturing.	2391	
				2392	House furnishings (except curtains and draperies) manufacturing.	2392	
				2393	Textile bags manufacturing.	2393	
				2394	Canvas products manufacturing.	2394	
				2395	Pleating, decorative and novelty stitching and tucking for the trade.	2395	
				2396	Apparel findings and related products manufacturing.	2396	
				2399	Other fabricated textile products manufacturing, NEC.	2397 and 2399	
24	Lumber and wood products (except furniture) manufacturing.	241	Logging camps and logging contractors.	2410	Logging camps and logging contractors.	241	
		242	Sawmills and planing mills.	2421	Sawmills and planing mills, general.	2421	
				2422	Hardwood dimension and flooring manufacturing.	2426	
				2429	Special sawmill products manufacturing, NEC.	2429	
		243	Millwork, veneer, plywood, and prefabricated structural wood products manufacturing.	2431	Millwork.	2431	
				2432	Veneer and plywood manufacturing.	2432	
				2433	Prefabricating wooden buildings and structural members manufacturing.	2433	
		244	Wooden containers manufacturing.	2440	Wooden containers manufacturing.	244	
		249	Other lumber and wood products (except furniture) manufacturing, NEC.	2491	Wood preserving.	2491	
				2499	Other lumber and wood products (except furniture) manufacturing, NEC.	2499	
25	Furniture and fixtures manufacturing.	251	Household furniture manufacturing.	2510	Household furniture manufacturing.	251	
		252	Office furniture manufacturing.	2520	Office furniture manufacturing.	252	
		253	Public building and related furniture manufacturing.	2530	Public building and related furniture manufacturing.	2531	

			urniture manufacturing.			ture manufacturing.	
	254	Partitions, shelving, lockers, and office and store fixtures manu- facturing.		2540	Partitions, shelving, lockers, and office and store fixtures manu- facturing.		254
	259	Other furniture and fixtures manu- facturing, NEC.		2591	Venetian blinds and shades manu- facturing.		2591
				2599	Other furniture and fixtures manu- facturing, NEC.		2599
26	Paper and allied products manufacturing.	261	Pulp manufacturing.	2610	Pulp manufacturing.		261
		262	Paper (except building paper) manufacturing.	2620	Paper (except building paper) manufacturing.		262

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>SIC Reference</i> <sup>†</sup>	<i>Land Use Code</i>
26	Paper and allied products manufacturing — Continued	263	Paperboard manufacturing.	2630	Paperboard manufacturing.	263	
		264	Converted paper and paperboard products (except containers and boxes) manufacturing.	2641	Paper coating and glazing.	2641	
				2642	Envelope manufacturing.	2642	
				2643	Bags (except textile bags) manu- facturing.	2643	
				2644	Wallpaper manufacturing.	2644	
				2645	Die cut paper and paperboard; and cardboard manufacturing.	2645	
				2646	Pressed and molded pulp goods manufacturing.	2646	
				2647	Sanitary paper products manufac- turing.	2647	
				2649	Other converted paper and paper- board products (except containers and boxes) manufacturing, NEC.	2649	
		265	Paperboard containers and boxes manufacturing.	2650	Paperboard containers and boxes manufacturing.	265	
		266	Building paper and building board manufacturing.	2660	Building paper and building board manufacturing.	266	
27	Printing, publishing, and allied industries.	271	Newspapers: publishing, publish- ing and printing.	2710	Newspapers: publishing, publishing and printing.	271	
		272	Periodicals: publishing, publishing and printing.	2720	Periodicals: publishing, publishing and printing.	272	
		273	Books: publishing, publishing and printing.	2730	Books: publishing, publishing and printing.	273	

274	Commercial printing.	2740	Commercial printing.	275
275	Manifold business forms manu- facturing.	2750	Manifold business forms manufac- turing.	276
276	Greeting card manufacturing.	2760	Greeting card manufacturing.	277
277	Bookbinding and related indus- tries manufacturing.	2771	Blankbooks, looseleaf binders, and devices manufacturing.	2782
		2772	Bookbinding and miscellaneous re- lated work manufacturing.	2789
278	Printing trade service industries.	2781	Typesetting.	2791
		2782	Photoengraving.	2793
		2783	Electrotyping and stereotyping.	2794
		2789	Other printing trade service indus- tries, NEC.	2799
279	Other printing and publishing, NEC.	2790	Other printing and publishing, NEC.	274
28	Chemicals and allied prod- ucts manufacturing.	281	Industrial inorganic and organic chemicals manufacturing.	281
		282	Plastics materials and synthetic resins, synthetic rubber, syn- thetic and other manmade fibers (except glass) manufacturing.	282
		283	Drug manufacturing.	2831
				2832
				2833
		284	Soap, detergents, and cleaning preparations, perfumes, eos- metics, and other toilet prepa- rations manufacturing.	2841
				2842
				2843
				2844

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>SIC Reference</i> <sup>†</sup>	<i>Land Use Code</i>
28	Chemicals and allied prod- ucts manufacturing Continued.	285	Paints, varnishes, lacquers, en- amels, and allied products manufacturing.	2850	Paints, varnishes, lacquers, enamels, and allied products manufacturing.	285	
		286	Gum and wood chemicals manu- facturing.	2860	Gum and wood chemicals manufac- turing.	286	
		287	Agricultural chemicals manufac- turing.	2870	Agricultural chemicals manufac- turing.	287	

	289	Other chemicals and allied products manufacturing, NEC.	2891	Glue and gelatin manufacturing.	2891	
			2892	Explosives manufacturing.	2892	
			2893	Printing ink manufacturing.	2893	
			2894	Carbon black manufacturing.	2895	
			2899	Other chemicals and allied products manufacturing, NEC.	2899	
29	Petroleum refining and related industries.	291	Petroleum refining.	2910	Petroleum refining.	291
		292	Paving and roofing materials manufacturing.	2921	Paving mixtures and blocks manufacturing.	2951
				2922	Asphalt felts and coatings manufacturing.	2952
		299	Other petroleum refining and related industries, NEC.	2991	Lubricating oils and greases manufacturing.	2992
				2999	Other petroleum and coal products manufacturing, NEC.	2999
31	Rubber and miscellaneous plastic products manufacturing.	311	Tires and inner tubes manufacturing.	3110	Tires and inner tubes manufacturing.	301
		312	Rubber footwear manufacturing.	3120	Rubber footwear manufacturing.	302
		313	Reclaiming rubber.	3130	Reclaiming rubber.	303
		314	Miscellaneous plastic products manufacturing.	3140	Miscellaneous plastic products manufacturing.	307
		319	Other fabricated rubber products manufacturing, NEC.	3190	Other fabricated rubber products manufacturing, NEC.	306
32	Stone, clay, and glass products manufacturing.	321	Flat glass manufacturing.	3210	Flat glass manufacturing.	3211 and incl. 3231
		322	Glass and glassware (pressed or blown) manufacturing.	3221	Glass containers manufacturing.	3221 and incl. 3231
				3229	Other glass and glassware (pressed or blown) manufacturing, NEC.	3229 and incl. 3231
		323	Cement (hydraulic) manufacturing.	3230	Cement (hydraulic) manufacturing.	324
		324	Structural clay products manufacturing.	3241	Brick and structural clay tile manufacturing.	3251
				3242	Ceramic wall and floor tile manufacturing.	3253
				3243	Clay refractories manufacturing.	3255
				3249	Other structural clay products manufacturing, NEC.	3259
		325	Pottery and related products manufacturing.	3251	Vitreous china plumbing fixtures, china, earthenware fittings, and bathroom accessories manufacturing.	3261
				3252	Vitreous china table and kitchen articles manufacturing.	3262
				3253	Fine earthenware (whiteware) table and kitchen articles manufacturing.	3263
				3254	Porcelain electrical supplies manufacturing.	3264



3259 Other pottery and related products manufacturing, NEC. 3269

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO-, THREE-, AND FOUR-DIGIT LEVELS — Continued**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>SIC Reference</i> <sup>†</sup>	<i>La</i>
32	Stone, clay, and glass products manufacturing Continued.	326	Concrete, gypsum, and plaster products manufacturing.	3261	Concrete brick and block manufacturing.	3271	
				3262	Concrete products (excluding brick and block) manufacturing.	3272	
				3263	Concrete (ready mixed) manufacturing.	3273	
				3264	Lime products manufacturing.	3274	
				3265	Gypsum products manufacturing.	3275	
		327	Cut stone and stone products manufacturing.	3270	Cut stone and stone products manufacturing.	328	
		328	Abrasive, asbestos, and miscellaneous nonmetallic mineral products manufacturing.	3280	Abrasive, asbestos, and miscellaneous nonmetallic mineral products manufacturing.	329	
33	Primary metal industries.	331	Blast furnaces, steel works, and the rolling and finishing of ferrous metals.	3311	Blast furnaces (including coke ovens), steel works, and the rolling of ferrous metals.	3312	
				3312	Electrometallurgical products manufacturing.	3313	
				3313	Steel wire drawing and steel nails and spikes manufacturing.	3315	
				3314	Cold rolled sheet, strip, and bars manufacturing.	3316	
				3315	Steel pipe and tubes manufacturing.	3317	
		332	Iron and steel foundries.	3320	Iron and steel foundries.	332	
		333	Primary smelting and refining of nonferrous metals.	3331	Primary smelting and refining of copper.	3331	
				3332	Primary smelting and refining of lead.	3332	
				3333	Primary smelting and refining of zinc.	3333	
				3334	Primary production of aluminum.	3334	
				3339	Other primary smelting and refining of nonferrous metals, NEC.	3339	
		334	Secondary smelting and refining of nonferrous metals and alloys.	3340	Secondary smelting and refining of nonferrous metals and alloys.	334	
		335	Rolling, drawing, and extruding of nonferrous metals.	3351	Rolling drawing, and extruding of copper.	3351	
				3352	Rolling, drawing, and extruding of aluminum.	3352	
				3353	Rolling, drawing, and extruding of nonferrous metals (except copper	3356	

					and aluminum).		
				3354	Drawing and insulating of nonferrous wire.		3357
		336	Nonferrous foundries.	3360	Nonferrous foundries.		336
		339	Other primary metal industries, NEC.	3390	Other primary metal industries, NEC.		339
34	Fabricated metal products manufacturing.	341	Ordinance and accessories.	3411	Guns, howitzers, mortars, and related equipment manufacturing.		191
				3412	Ammunition (except small arms) manufacturing and complete assembling of guided missiles and space vehicles.		192
				3413	Tanks and tank components manufacturing.		193
				3414	Sighting and fire control equipment manufacturing.		194
				3415	Small arms manufacturing.		195
				3416	Small arms ammunition manufacturing.		196
				3419	Other ordinance and accessories manufacturing, NEC.		199

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES TWO, THREE, AND FOUR DIGIT LEVELS Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>1</sup>	Lat Cl
34	Fabricated metal products manufacturing Continued.	342	Machinery (except electrical) manufacturing.	3421	Engines and turbines manufacturing.	351	
				3422	Farm machinery and equipment manufacturing.	352	
				3423	Construction, mining, and materials handling machinery and equipment manufacturing.	353	
				3424	Metalworking machinery and equipment manufacturing.	354	
				3425	Special industry machinery (except metalworking machinery) manufacturing.	355	
				3426	General industrial machinery and equipment manufacturing.	356	
				3427	Office, computing, and accounting machines manufacturing.	357	
				3428	Service industry machines manufacturing.	358	
				3429	Other machinery (except electrical), NEC.	359	
		343	Electrical machinery, equipment, and supplies manufacturing.	3431	Electrical transmission and distribution equipment manufacturing.	361	
				3432	Electrical industrial apparatus manufacturing.	362	
				3433	Household appliances manufacturing.	363	

					ing.		
				3434	Electric lighting and wiring equipment manufacturing.	364	
				3435	Radio and television receiving sets (except communication types) manufacturing.	365	
				3436	Communication equipment manufacturing.	366	
				3437	Electronic components and accessories manufacturing.	367	
				3439	Other electrical machinery, equipment, and supplies manufacturing, NEC.	369	
	344	Transportation equipment manufacturing.		3441	Motor vehicles and motor vehicle equipment manufacturing.	371	
				3442	Aircraft and parts manufacturing.	372	
				3443	Ship and boat building and repairing.	373	
				3444	Railroad equipment manufacturing.	374	
				3445	Motocycles, bicycles, and parts manufacturing.	375	
				3449	Other transportation equipment manufacturing, NEC.	379	
	349	Other fabricated metal products manufacturing, NEC.		3491	Metal cans manufacturing.	341	
				3492	Cutlery, hand tools, and general hardware manufacturing.	342	
				3493	Heating apparatus (except electrical) and plumbing fixtures manufacturing.	343	
				3494	Fabricated structural metal products manufacturing.	344	
				3495	Screw machine products and bolts, nuts, screws, rivets, and washers manufacturing.	345	
				3496	Metal stamping manufacturing.	346	
				3497	Coating, engraving, and allied services.	347	
				3498	Fabricated wire products (miscellaneous products) manufacturing.	348	
				3499	Other fabricated metal products manufacturing, NEC.	349	

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>†</sup>	Land Use Code
35	Professional, scientific, and controlling instruments; photographic and optical goods; watches and clocks manufacturing.	351	Engineering, laboratory, and scientific and research instruments and associated equipment manufacturing.	3510	Engineering, laboratory, and scientific and research instruments and associated equipment manufacturing.	381	C
		352	Instruments for measuring, controlling, and indicating physical characteristics manufacturing.	3521	Mechanical measuring and controlling instruments (except automatic temperature controls) manufacturing.	3821	

					uring.		
			3522	Automatic temperature controls manufacturing.		3822	
	353	Optical instruments and lenses manufacturing.	3530	Optical instruments and lenses manufacturing.		383	
	354	Surgical, medical, and dental instruments and supplies manufacturing.	3541	Surgical and medical instruments and apparatus manufacturing.		3841	
				3542	Orthopedic, prosthetic, and surgical appliances and supplies manufacturing.	3842	
				3543	Dental equipment and supplies manufacturing.	3843	
	355	Ophthalmic goods manufacturing.	3550	Ophthalmic goods manufacturing.		385	
	356	Photographic equipment and supplies manufacturing.	3560	Photographic equipment and supplies manufacturing.		386	
	357	Watches, clocks, clockwork operated devices, and parts manufacturing.	3570	Watches, clocks, clockwork operated devices, and parts manufacturing.		387	
39	Miscellaneous manufacturing, NEC.	391	Jewelry, silverware, and plated ware manufacturing.	3911	Jewelry and precious metals manufacturing.	3911	
				3912	Jewelers' findings and materials manufacturing.	3912	
				3913	Lapidary work.	3913	
				3914	Silverware and plated ware manufacturing.	3914	
		392	Musical instruments and parts manufacturing.	3920	Musical instruments and parts manufacturing.	393	
		393	Toys, amusement, sporting, and athletic goods manufacturing.	3930	Toys, amusement, sporting, and athletic goods manufacturing.	394	
		394	Pens, pencils, and other office and artists' materials manufacturing.	3940	Pens, pencils, and other office and artists' materials manufacturing.	395	
		395	Costume jewelry, costume novelties, buttons, and miscellaneous notions (except precious metals) manufacturing.	3950	Costume jewelry, costume novelties, buttons, and miscellaneous notions (except precious metals) manufacturing.	396	
		396	Tobacco manufacturing.	3961	Cigarettes manufacturing.	211	
				3962	Cigars manufacturing.	212	
				3963	Tobacco (chewing and smoking) and snuff manufacturing.	213	
				3964	Tobacco stemming and redrying.	214	
	397	Motion picture production.	3970	Motion picture production.		7811	B

**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>SIC Reference<sup>†</sup></i>	<i>Land Use Classification</i>
39	Miscellaneous manufacturing, NEC — Continued.	399	Other miscellaneous manufacturing, NEC.	3991	Brooms and brushes manufacturing.	3981	
				3992	Linoleum, asphalted felt base, and other hard surface floor cover manufacturing, NEC.	3982	
				3993	Matches manufacturing.	3983	
				3994	Lamp shades manufacturing.	3987	
				3995	Mortician's goods manufacturing.	3988	
				3996	Fur dressing and dyeing	3992	
				3997	Signs and advertising displays manufacturing.	3993	
				3998	Umbrellas, parasols, and canes manufacturing.	3995	
				3999	Other miscellaneous manufacturing, NEC.	3984 and 3999	
41	Railroad, rapid rail transit, and street railway transportation.	411	Railroad transportation.	4111	Railroad right of way (excluding switching and marshaling yards).		
				4112	Railroad switching and marshaling yards.		
				4113	Railroad terminals (passenger).		
				4114	Railroad terminals (freight).		
				4115	Railroad terminals (passenger and freight).		
				4116	Railroad equipment and maintenance.		
				4119	Other railroad transportation, NEC.		
		412	Rapid rail transit and street railway transportation.	4121	Rapid rail transit and street railway right of way. <sup>2</sup>		
				4122	Rapid rail transit and street railway passenger terminals. <sup>3</sup>		
				4123	Rapid rail transit and street railway equipment maintenance.		
				4129	Other rapid rail transit and street railway transportation, NEC.		
42	Motor vehicle transportation.	421	Bus transportation.	4211	Bus passenger terminals (intercity). <sup>4</sup>		
				4212	Bus passenger terminals (local). <sup>4</sup>		
				4213	Bus passenger terminals (intercity and local). <sup>4</sup>		
				4214	Bus garaging and equipment maintenance.		
				4219	Other bus transportation, NEC.		
		422	Motor freight transportation.	4221	Motor freight terminals.		

	4222	Motor freight garaging and equipment maintenance.
	4229	Other motor freight transportation, NEC.

**FOOTNOTES**

<sup>1</sup>The SIC codes are listed for purposes of reference. They are the codes in the SIC system that most nearly correspond to the 4 digit land use activity indicated. (See ch. III, Sec. A3, "The Use of Standard Industrial Classification Nomenclature.") A dash indicates that there is no corresponding SIC code.

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES TWO, THREE, AND FOUR DIGIT LEVELS -- Continued**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>SIC Reference</i> <sup>1</sup>	<i>Land Use Classification</i>
42	Motor vehicle transportation-Continued	429	Other motor vehicle transportation, NEC.	4291	Taxicab transportation.	4121	
				4299	Other motor vehicle transportation, NEC.		
43	Aircraft transportation.	431	Airports and flying fields.	4311	Airport and flying field landing/takeoff fields.		
				4312	Airport and flying field terminals (passenger).		
				4313	Airport and flying field terminals (freight).		
				4314	Airport and flying field terminals (passenger and freight).		
				4315	Aircraft storage and equipment maintenance.		
				4319	Other airports and flying fields, NEC.		
		439	Other aircraft transportation, NEC.	4391	Heliport landing/takeoff pads. <sup>5</sup>		
				4399	Other aircraft transportation, NEC.		
44	Marine craft transportation. <sup>8</sup>	441	Marine terminals. <sup>7</sup>	4411	Marine terminals (passenger). <sup>8</sup>		
				4412	Marine terminals (freight).		
				4413	Marine terminals (passenger and freight).		
				4414	Marine terminals (commercial fishing).		

				4419	Other marine terminals, NEC.		
		449	Other marine craft transportation, NEC.	4490	Other marine craft transportation, NEC.		
45	Highway and street right of way.	451	Freeways.	4510	Freeways.9		
		452	Expressways.	4520	Expressways.10		
		453	Parkways.	4530	Parkways.11		
		454	Arterial streets.	4540	Arterial streets.12		
		455	Collector/distributor streets.	4550	Collector/distributor streets.13		
		456	Local access streets.	4560	Local access streets.14		
		457	Alleys.	4570	Alleys.15		
		459	Other highway and street right of way, NEC.	4590	Other highway and street right of way, NEC.		
46	Automobile parking.	460	Automobile parking.	4600	Automobile parking.16		
47	Communication.	471	Telephone communication.	4711	Telephone exchange stations.		
				4712	Telephone relay towers (microwave).		
				4719	Other telephone communication, NEC.		
		472	Telegraph communication.	4721	Telegraph message centers.		
				4722	Telegraph transmitting and receiving stations (only).		
				4729	Other telegraph communication, NEC.		
		473	Radio communication.	4731	Radio broadcasting studios (only).		
				4732	Radio transmitting stations and towers.		
				4739	Other radio communication, NEC.		
		474	Television communication.	4741	Television broadcasting studios (only).		
				4742	Television transmitting stations and relay towers.		
				4749	Other television communication, NEC.		
		475	Radio and television communication (combined systems).	4751	Radio and television broadcasting studios, only (combined systems).		
				4759	Other combined radio and television communication, NEC.		
		479	Other communication, NEC.	4790	Other communication, NEC.		

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>†</sup>	Land Use Classification
48	Utilities	481	Electric utility.	4811	Electric transmission right of way.17		
				4812	Electric generation plants.		
				4813	Electricity regulating substations.		

		4819	Other electric utility, NEC.		
	482	Gas utility.		4821	Gas pipeline right of way. <sup>17</sup>
				4822	Gas production plants.
				4823	Natural or manufactured gas storage and distribution points.
				4824	Gas pressure control stations.
				4829	Other gas utilities, NEC.
	483	Water utilities and irrigation.		4831	Water pipeline right of way. <sup>17</sup>
				4832	Water treatment plants (purification).
				4833	Water storage. <sup>18</sup>
				4834	Irrigation distribution channels.
				4835	Water pressure control stations.
				4839	Other water utilities and irrigation, NEC.
	484	Sewage disposal.		4841	Sewage treatment plants.
				4842	Sewage sludge drying beds.
				4843	Sewage pressure control stations.
				4849	Other sewage disposal, NEC.
	485	Solid waste disposal.		4851	Refuse incineration.
				4852	Central garbage grinding stations.
				4853	Compositing plants.
				4854	Sanitary landfills.
				4855	Refuse disposals.
				4856	Industrial waste disposals.
				4857	Active slag dumps and mineral waste disposals.
				4859	Other solid waste disposal, NEC.
	489	Other utilities, NEC.		4890	Other utilities, NEC.
49	Other transportation, communication, and utilities, NEC.	491	Other pipeline right of way and pressure control stations, NEC.	4911	Petroleum pipeline right of way. <sup>17</sup>
				4912	Petroleum pressure control stations.
				4919	Other pipeline right of way and pressure control stations, NEC.
	492	Transportation services and arrangements.		4921	Freight forwarding services.
					4041 and 4712
				4922	Packing and crating services.
					4783
				4923	Travel arranging services.
					472
				4924	Transportation ticket services. <sup>18</sup>
				4929	Other transportation services and arrangements, NEC.
	499	Other transportation, communication, and utilities, NEC.		4900	Other transportation, communication, and utilities, NEC.

**FOOTNOTES**

identified only

<sup>17</sup>The SIC codes are listed for purposes of reference. They are the 431, "Airports codes in the SIC system that most nearly correspond to the 4 digit land use activity indicated. (See ch. III, Sec. A3, "The Use of Stand maintenance and

<sup>18</sup>Code 4391 "Heliport landing/takeoff pads" are

when they are separate activities and not a part of code and flying fields."

<sup>19</sup>Code 44 "Marine craft transportation." The



ard Industrial Classification Nomenclature.”) A dash indicates that repair of marine craft should be coded 3443, “Ship and boat building and repairing.”

there is no corresponding SIC code. and repairing.”

<sup>2</sup>Code 4121 “Rapid rail transit and street railway right of way” <sup>2</sup>Code 441 “Marine terminals” include all docking facilities (e.g., wharves, piers, and docks) and associated areas that are used by commercial passenger, freight, and fishing craft. Docking facilities that are located within a public street right of way (e.g., within a public street right of way). Railroad right of way used by facilities that primarily serve recreational type of marine craft are identified under code 744, “Marinas,”

4111. code 744, “Marinas,”

<sup>3</sup>Code 4122 “Rapid rail transit and street railway passenger terminals” include ferry terminals. <sup>3</sup>Code 4411 “Marine terminals (passenger)”

minerals” identifies only those terminals that are not located within public right of way (e.g., within a public street right of way). <sup>9</sup>Code 4510 “Freeways” are divided highways for through traffic with full control of access and no cross traffic at grade.

<sup>4</sup>Codes 4211, 4212, 4213 “Bus passenger terminals” identifies only those terminals that are not located on the public right of way (e.g., within a public street right of way). <sup>10</sup>Code 4520 “Expressways” are divided highways for through traffic with full or partial control of access with grade separations at major crossroads.

Footnotes continued on following page.

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES TWO, THREE, AND FOUR DIGIT LEVELS—Continued**

<sup>14</sup>Code 4530 “Parkways” are highways for noncommercial traffic, (17 parking spaces), and that serves no other single type of activity, with full or partial control of access. They are located within a park parking structure or within a ribbon of parklike development. This code includes parking on open lots, parking within parking structures, parking within structures that also house other activities (e.g., parking area in an office building), and the parking area at shopping centers. Parking areas of less than 5,000 square feet are not identified as a separate activity.

Generally there is no control of access. as a separate activity.

<sup>13</sup>Code 4540 “Arterial streets” are those streets which serve movements of traffic and are not freeways, expressways, and parkways. <sup>17</sup>Codes 4811, 4821, 4831, 4911 These codes identify those areas where the *surface is devoted exclusively to the right of way* of the respective activities and is used for no other purposes.

collect traffic from the local streets and channel it into the arterial parking area in an office building), and the parking area at shopping centers. Parking areas of less than 5,000 square feet are not identified as a separate activity.

<sup>13</sup>Code 4550 “Collector/distributor streets” are those streets that collect traffic from the local streets and channel it into the arterial where the *surface is devoted exclusively to the right of way* of the respective activities and is used for no other purposes.

system. These streets also provide necessary cross-connections between arterials. The collector/distributor street does not handle long impounded surface water <sup>18</sup>Code 4833 “Water storage” includes areas or water tanks used for storage. Lakes or other natural water formations are identified under code 93, “Water

<sup>14</sup>Code 4560 “Local access streets” are those used primarily for access to residences, businesses, or other abutting activities. <sup>19</sup>Code 4924 “Transportation ticket services” include the ticket offices of any of the transportation systems. The ticket offices are

<sup>15</sup>Code 4570 “Alleys” are minor narrow streets usually without sidewalks and on which building adjoin from the rear. identified only when they are a separate and distinct activity, not

<sup>16</sup>Code 4600 “Automobile parking” includes nonresidential off-street parking that is 5,000 square feet or greater (or approximately located within one of the transportation terminals.

Code	Category	Code	Category	Code	Category	SIC	Land Use
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51	Wholesale trade.2	511	Motor vehicles and automotive equipment - wholesale.	5111	Automobiles and other motor vehicles - wholesale.	5012
				5112	Automotive equipment - wholesale.	5013
				5113	Tires and tubes - wholesale.	5014
		512	Drugs, chemicals, and allied products - wholesale.	5121	Drugs, drug proprietaries and druggists' sundries - wholesale.	5022
				5122	Paints and varnishes - wholesale.	5028
				5129	Other drugs, chemicals, and allied products, wholesale, NEC.	5029
		513	Dry goods and apparel - wholesale.	5131	Dry goods, piece goods, and notions - wholesale.	5032
				5132	Apparel and accessories, hosiery, and lingerie - wholesale.	5035
				5133	Footwear - wholesale.	5039
		514	Groceries and related products - wholesale.	5141	Groceries (general line) - wholesale.	5042
				5142	Dairy products - wholesale.	5043
				5143	Poultry and poultry products - wholesale.	5044
				5144	Confectionery - wholesale.	5045
				5145	Fish and seafoods - wholesale.	5046
				5146	Meats and meat products - wholesale.	5047
				5147	Fruits and vegetables (fresh) - wholesale.	5048
				5149	Other groceries and related products - wholesale, NEC.	5049
		515	Farm products (raw materials) - wholesale.	5151	Cotton - wholesale.	
	Incl. 5051			5152	Grain - wholesale.	
	Incl. 5051			5153	Hides, skins, and raw furs - wholesale.	
	Incl. 5051			5154	Leaf tobacco - wholesale.	
	Incl. 5051			5155	Wool and mohair - wholesale.	
	Incl. 5051			5156	Livestock - wholesale.	
	Incl. 5051			5157	Horses and mules - wholesale.	
	Incl. 5051			5159	Other farm products - wholesale, NEC.	
		516	Electrical goods - wholesale.	5161	Electrical apparatus and equipment, wiring supplies, and construction materials - wholesale.	5063
				5162	Electrical appliances, television, and radio sets - wholesale.	5064
				5163	Electronic parts and equipment - wholesale.	5065
		517	Hardware, plumbing, heating equipment, and supplies - wholesale.	5171	Hardware - wholesale.	5072
				5172	Plumbing and heating equipment and supplies - wholesale.	5074

5173 Air conditioning, refrigerated equipment, and supplies—wholesale. 5077

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES—TWO, THREE, AND FOUR-DIGIT LEVELS—Continued**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>SIC Reference<sup>†</sup></i>	<i>Land Use Code</i>
51	Wholesale trade 2 Continued	518	Machinery, equipment, and supplies—wholesale.	5181	Commercial and industrial machinery, equipment, and supplies—wholesale.	5082	
				5182	Farm machinery and equipment—wholesale.	5083	
				5183	Professional equipment and supplies—wholesale.	5086	
				5184	Equipment and supplies for service establishments—wholesale.	5087	
				5185	Transportation equipment and supplies (except motor vehicles)—wholesale.	5088	
				5189	Other machinery, equipment, and supplies—wholesale, NEC.	5089	
		519	Other wholesale trade, NEC.	5191	Metals and minerals (except petroleum products and scrap)—wholesale.	5091	
				5192	Petroleum bulk stations and terminals—wholesale.	5092	
				5193	Scrap and waste materials—wholesale.	5093	
				5194	Tobacco and tobacco products—wholesale.	5094	
				5195	Beer, wine, and distilled alcoholic beverages—wholesale.	5095	
				5196	Paper and paper products—wholesale.	5096	
				5197	Furniture and home furnishings—wholesale.	5097	
				5198	Lumber and construction materials—wholesale.	5098	
				5199	Other wholesale trade, NEC.	5099	
52	Retail trade—building materials, hardware, and farm equipment.	521	Lumber and other building materials—retail.	5211	Lumber—retail.	5211	
				5212	Building materials—retail.	5212	
		522	Heating and plumbing equipment—retail.	5220	Heating and plumbing equipment—retail.	522	
		523	Paint, glass, and wallpaper—retail.	5230	Paint, glass, and wallpaper—retail.	523	
		524	Electrical supplies—retail.	5240	Electrical supplies—retail.	524	
		525	Hardware and farm equipment—retail.	5251	Hardware—retail.	5251	
				5252	Farm equipment—retail.	5252	

53	Retail trade—general merchandise.	531	Department stores—retail.	5310	Department stores—retail.	531
		532	Mail order houses—retail.	5320	Mail order houses—retail.	532
		533	Limited-price variety stores—retail.	5330	Limited-price variety stores—retail.	533
		534	Merchandise vending machine operators—retail.	5340	Merchandise vending machine operators—retail.	534
		535	Direct selling organizations—retail.	5350	Direct selling organizations—retail.	535
		539	Other retail trade—general merchandise, NEC.	5391	Dry goods and general merchandise—retail.	5392
				5392	General stores—retail.	5393
54	Retail trade—food.	541	Groceries (with or without meat)—retail.	5410	Groceries (with or without meat)—retail.	541
		542	Meats and fish—retail.	5421	Meats—retail.	5422
				5422	Fish and seafoods—retail.	5423

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES—TWO, THREE, AND FOUR DIGIT LEVELS—Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>†</sup>	La Cl
54	Retail trade—food	543	Fruits and vegetables—retail.	5430	Fruits and vegetables—retail.	543	
	Continued	544	Candy, nut, and confectionery—retail.	5440	Candy, nut, and confectionery—retail.	544	
		545	Dairy products—retail.	5450	Dairy products—retail.	545	
		546	Bakeries—retail.	5461	Bakeries (manufacturing)—retail. <sup>3</sup>	5462	
				5462	Bakeries (nonmanufacturing)—retail. <sup>4</sup>	5463	
		549	Other retail trade—food, NEC.	5491	Egg and poultry—retail.	5491	
				5499	Other retail trade—food, NEC.	5499	
55	Retail trade—automotive, marine craft, aircraft, and accessories.	551	Motor vehicles—retail.	5511	Motor vehicles (new and used cars)—retail.	551	
				5512	Motor vehicles (used cars only)—retail.	552	
		552	Tires, batteries, and accessories—retail.	5520	Tires, batteries, and accessories—retail.	553	
		553	Gasoline service stations.	5530	Gasoline service stations.	554	
		559	Other retail trade—automotive,	5591	Marine craft and accessories—retail.	Incl. 5599	

		marine craft, aircraft, and accessories, NEC.	5592 Aircraft and accessories—retail.	Incl. 5599
			5599 Other retail trade—automotive, marine craft, aircraft, and accessories, NEC.	Incl. 5599
56	Retail trade—apparel and accessories.	561 Men's and boys' clothing and furnishings—retail.	5610 Men's and boys' clothing and furnishings—retail.	561
		562 Women's ready to wear retail.	5620 Women's ready to wear retail.	562
		563 Women's accessories and specialties—retail.	5630 Women's accessories and specialties—retail.	563
		564 Children's and infants' wear—retail.	5640 Children's and infants' wear—retail.	564
		565 Family clothing—retail.	5650 Family clothing—retail.	565
		566 Shoes—retail.	5660 Shoes—retail.	566
		567 Custom tailoring.	5670 Custom tailoring.	567
		568 Furriers and fur apparel—retail.	5680 Furriers and fur apparel—retail.	568
		569 Other retail trade—apparel and accessories, NEC.	5690 Other retail trade—apparel and accessories, NEC.	569
57	Retail trade—furniture, home furnishings, and equipment.	571 Furniture, home furnishings, and equipment—retail.	5711 Furniture—retail.	5712
			5712 Floor coverings—retail.	5713
			5713 Draperies, curtains, and upholstery—retail.	5714
			5714 China, glassware, and metalware—retail.	5715
			5719 Other furniture, home furnishings, and equipment retail, NEC.	5719
		572 Household appliances—retail.	5720 Household appliances—retail.	572
		573 Radios, televisions, and music supplies—retail.	5731 Radios and televisions—retail.	5732
			5732 Music supplies—retail.	5733
58	Retail trade—eating and drinking.	581 Eating places.	5810 Eating places.	5812
		582 Drinking places (alcoholic beverages).	5820 Drinking places (alcoholic beverages).	5813

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES—TWO, THREE, AND FOUR-DIGIT LEVELS—Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>†</sup>	Land Use Code
59	Other retail trade, NEC.	591	Drug and proprietary—retail.	5910	Drug and proprietary—retail.	591	
		592	Liquor—retail.	5920	Liquor—retail.	592	

593	Antiques and secondhand merchandise retail.	5931	Antiques retail.	5932
		5932	Secondhand merchandise retail.	5933
594	Book and stationery retail.	5941	Books retail.	5942
		5942	Stationery retail.	5943
595	Sporting goods and bicycles retail.	5951	Sporting goods retail.	5952
		5952	Bicycles retail.	5953
596	Farm and garden supplies retail.	5961	Hay, grains, and feeds retail.	5962
		5969	Other farm and garden supplies retail, NEC.	5969
597	Jewelry retail.	5970	Jewelry retail.	597
598	Fuel and ice retail.	5981	Fuel and ice dealers (except fuel oil and bottled gas dealers) retail.	5982
		5982	Fuel oil retail.	5983
		5983	Bottled gas retail.	5984
599	Other retail trade, NEC.	5991	Florists retail.	5992
		5992	Cigars and cigarettes retail.	5993
		5993	Newspapers and magazines retail.	5994
		5994	Cameras and photographic supplies retail.	5996
		5995	Gifts, novelties, and souvenirs retail.	5997
		5996	Optical goods retail.	5998
		5999	Other retail trade, NEC.	5999
61	Finance, insurance, and real estate services.	611	Banking and bank-related functions.	6111
				6112
		6111	Banking services.	601, 602, 603, and 604
		6112	Bank-related functions.	605
		612	Credit services (other than banks).	6121
		6121	Savings and loan associations.	612
		6122	Agricultural, business, and personal credit services (including credit unions).	613, 614 and 615
		6129	Other credit services (other than banks), NEC.	611 and 616
613	Security and commodity brokers, dealers, exchanges, and services.	6131	Security brokers, dealers, and flotation services.	6211
		6132	Commodity contracts brokers and dealers services.	6221
		6133	Security and commodity exchanges.	623
		6134	Security and commodity allied services.	628
614	Insurance carriers, agents, brokers, and services.	6141	Insurance carriers.	63
		6142	Insurance agents, brokers, and services.	64

**FOOTNOTES**

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merchandise.

the premises. For example, 5122-0 is a wholesaler of paints

nishes who has a definite storage area set aside for his

<sup>1</sup>The SIC codes are listed for purposes of reference. They are the only those codes in the SIC system that most nearly correspond to the 4 digit products sold. land use activity indicated. (See ch. 111, sec. A3, "The Use of Standard Industrial Classification Nomenclature.") A dash indicates that there is no corresponding SIC code.

<sup>2</sup>Code 51 "Wholesale trade." A code of "0" is used in the auxiliary position for those wholesalers who maintain a definite storage area on serving

<sup>3</sup>Code 5461 "bakeries (manufacturing) retail" include bakeries that produce on the premises some or all of the products sold.

<sup>4</sup>Code 5462 "Bakeries (nonmanufacturing) retail" include only those bakeries that do not produce on the premises the products that are sold.

<sup>5</sup>Code 5810 "Eating places" include both establishments serving only food as well as those serving both food and alcoholic beverages.

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES TWO, THREE, AND FOUR DIGIT LEVELS—Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>1</sup>	La Cl
61	Finance, insurance, and real estate services.	615	Real estate and related services.	6151	Real estate operators (except developers) and lessors.	651	
	Continued.			6152	Real estate agents, brokers, and management services.	653	
				6153	Title abstracting services.	654	
				6154	Real estate subdividing and developing services.	655	
				6155	Real estate operative builders.	656	
				6156	Combinations of real estate, insurance, loan, and law services.	661	
				6159	Other real estate and related services, NEC.		
		616	Holding and investment services.	6160	Holding and investment services.	67	
		619	Other finance, insurance, and real estate services, NEC.	6190	Other finance, insurance, and real estate services, NEC.		
62	Personal services.	621	Laundrying, dry cleaning, and dyeing services.	6211	Laundrying, dry cleaning, and dyeing services (except rugs).	7211, 7212, a 7216	
				6212	Linen supply and industrial laundry services.	7213	
				6213	Diaper services.	7214	
				6214	Laundrying and dry cleaning (self service).	7215	
				6215	Rug cleaning and repair services.	7217	
		622	Photographic services (including commercial).	6220	Photographic services (including commercial).	722	
		623	Beauty and barber services.	6231	Beauty services.	723	
				6232	Barber services.	724	

624	Funeral and crematory services; cemeteries.	6241	Funeral and crematory services.	726
		6242	Cemeteries.	
625	Apparel repair, alteration and cleaning pickup services; shoe repair services.	6251	Pressing, alteration, and garment repair; laundry and dry cleaning pickup services (only).	7271
		6252	Fur repair and storage services.	7272
		6253	Shoe repair, shoe shining, and hat cleaning services.	725
629	Other personal services, NEC.	6290	Other personal services, NEC.	729
63	Business services.	631	Advertising services.	
		6311	Advertising services (general).	7311
		6312	Outdoor advertising services.	7312
		6319	Other advertising services, NEC.	7319
		632	Consumer and mercantile credit reporting services; adjustment and collection services.	
		6320	Consumer and mercantile credit reporting services; adjustment and collection services.	7321
		633	Duplicating mailing and stenographic services.	
		6331	Direct mail advertising services.	7331
		6332	Blueprinting and photocopying service.	7332
		6339	Stenographic services and other duplicating and mailing services, NEC.	7339
		634	Dwelling and other building services.	
		6341	Window cleaning services.	7341
		6342	Disinfecting and exterminating services.	7342
		6349	Other dwelling and building services, NEC.	7349
		635	News syndicate services.	735
		636	Employment services.	736

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>1</sup>	Land Use Code
63	Business services	637	Warehousing and storage services. <sup>2</sup>	6371	Farm products warehousing and storage (excluding stockyards).	4221	
	Continued			6372	Stockyards.	4731	
				6373	Refrigerated warehousing (except food lockers).	4222	
				6374	Food lockers (with or without food preparation facilities).	4223	
				6375	Household goods warehousing and storage.	4224	
				6376	General warehousing and storage.	4225	
				6379	Other warehousing and storage, NEC.	4226	



	639	Other business services, NEC.	6391	Research, development, and testing services.	7391	
			6392	Business and management consulting services.	7392	
			6393	Detective and protective services.	7393	
			6394	Equipment rental and leasing services.	7394	
			6395	Photofinishing services.	7395	
			6396	Trading stamp services.	7396	
			6397	Automobile and truck rental services.	7511	
			6398	Motion picture distribution and services.	7812 and 782	
			6399	Other business services, NEC.	7399	
64	Repair services.	641	Automobile repair and services.	6411	Automobile repair services.	753
				6412	Automobile wash services.	Incl. 7541
				6419	Other automobile services (except repair and wash), NEC.	Incl. 7541
		649	Other repair services, NEC.	6491	Electrical repair services (except radio and television).	Incl. 7621
				6492	Radio and television repair services.	7622
				6493	Watch, clock, and jewelry repair services.	763
				6494	Reupholstery and furniture repair services.	764
				6495	Armature rewinding services.	7694
				6499	Other repair services, NEC.	7699
65	Professional services.	651	Medical and other health services.	6511	Physicians' services.	801, 803, and 804
				6512	Dental services.	802
				6513	Hospital services.	806
				6514	Medical laboratory services.	8071
				6515	Dental laboratory services.	8072
				6516	Sanitariums, convalescent, and rest home services.	8092
				6517	Medical clinics - out patient services.	
				6519	Other medical and health services, NEC.	8099
		652	Legal services.	6520	Legal services.	811
		659	Other professional services, NEC.	6591	Engineering and architectural services.	891
				6592	Educational and scientific research services.	892
				6593	Accounting, auditing, and book keeping services.	893
				6594	Urban planning services.	Incl. 899
				6599	Other professional services, NEC.	Incl. 899
66	Contract construction services.	661	General contract construction services.	6611	Building construction - general contractor services.	151
				6619	Other general construction contractor services, NEC.	16

**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR-DIGIT**

**LEVELS — Continued**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>SIC Reference</i> <sup>†</sup>	<i>Land Use Classification</i>
66	Contract construction services — Continued	662	Special construction trade services.	6621	Plumbing, heating, and air conditioning services.	171	
				6622	Painting, paper hanging, and decorating services.	172	
				6623	Electrical services.	173	
				6624	Masonry, stonework, tile setting, and plastering service.	174	
				6625	Carpentering and wood flooring.	175	
				6626	Roofing and sheet metal services.	176	
				6627	Concrete services.	177	
				6628	Water well drilling services.	178	
				6629	Other special construction trade services, NEC.	179	
67	Governmental services.	671	Executive, legislative, and judicial functions.	6710	Executive, legislative, and judicial functions. <sup>3</sup>	Incl. 919, 929, and 939	
		672	Protective functions and their related activities.	6721	Police protection and related activities.	Incl. 919, 929, and 939	
				6722	Fire protection and related activities.	Incl. 919, 929, and 939	
				6723	Civil defense and related activities.	Incl. 919, 929, and 939	
		673	Postal services.	6730	Postal services.	Incl. 919	
		674	Correctional institutions.	6741	Prisons.	Incl. 919, 929, and 939	
				6749	Other correctional institutions, NEC.	Incl. 919, 929, and 939	
		675	Military bases and reservations. <sup>4</sup>	6751	Military training bases.	Incl. 919 and 929	
				6752	Military defense installations.	Incl. 919 and 929	
				6753	Military storage depots and transportation centers.	Incl. 919 and 929	
				6754	Military maintenance centers.	Incl. 919 and 929	
				6755	Military administration or command centers.	Incl. 919 and 929	
				6756	Military communication centers.	Incl. 919 and 929	
				6759	Other military bases and reservations, NEC.	Incl. 919 and 929	
68	Educational services.	681	Nursery, primary, and secondary	6811	Nursery schools.	Incl. 821	

	education.	6812	Primary (elementary) schools. <sup>5</sup>	Incl. 821
		6813	Secondary schools. <sup>6</sup>	Incl. 821
682	University, college, junior college, and professional school education.	6821	Universities and colleges.	Incl. 8221
		6822	Junior colleges.	Incl. 8222
		6823	Professional schools.	Incl. 8221
683	Special training and schooling.	6831	Vocational or trade schools.	8242
		6832	Business and stenographic schools.	Incl. 8299
		6833	Barber and beauty schools.	Incl. 723 and 724
		6834	Art and music schools.	Incl. 8299
		6835	Dancing schools.	Incl. 7911
		6836	Driving schools.	Incl. 8299
		6837	Correspondence schools.	8241
		6839	Other special training and schooling, NEC.	Incl. 8299

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES TWO, THREE, AND FOUR DIGIT LEVELS Continued**

Code	Category	Code	Category	Code	Category	SIC Reference <sup>1</sup>	Land Use Classification
69	Miscellaneous services.	691	Religious activities. <sup>7</sup>	6911	Churches, synagogues, and temples.	Incl. 866	
				6919	Other religious activities, NEC.	Incl. 866	
		692	Welfare and charitable services.	6920	Welfare and charitable services.	867	
		699	Other miscellaneous services, NEC.	6991	Business associations.	861	
				6992	Professional membership organizations.	862	
				6993	Labor unions and similar labor organizations.	863	
				6994	Civic, social, and fraternal associations.	864	
				6999	Other miscellaneous services, NEC.		

**FOOTNOTES**

<sup>1</sup>The SIC codes are listed for purposes of reference. They are the codes in the SIC system that most nearly correspond to the 4 digit land use activity indicated. (See ch. III, sec. A3, "The Use of Standard Industrial Classification Nomenclature.") A dash indicates that there is no corresponding SIC code.

<sup>2</sup>Code 637 "Warehousing and storage services" include only those shipbuilding, legislature and courts. All operational activities (e.g., schools, or hospitals) should be identified separately activity codes.

<sup>3</sup>Code 637 "Warehousing and storage services" include only those Reserves and the National Guard.

<sup>4</sup>Code 675 "Military bases and reservations" include tions used by both the active military as well as the

facilities that are used by or are open to the public. When warehousing and storage is functionally and organizationally linked to another activity (e.g., a general contractor or an apparel manufacturer), the facilities are identified and coded the same as the parent activity and with a code of 4 (warehousing and storage) in the auxiliary position. For example, 2310 4 is a warehouse and storage area of a manufacturer of men's, youths', and boys' suits, coats, and overcoats.

<sup>5</sup>Code 6812 "Primary (elementary) schools" may or may not include a kindergarten, but they do include grades 1 through 6.

<sup>6</sup>Code 6813 "Secondary schools" are schools that include grades 7 through 12, popularly known as junior and senior high schools.

<sup>7</sup>Code 691 "Religious activities" include only those places operated for worship or for the promotion of religious activities. Activities maintained by the religious organizations (e.g., schools, hospitals, publishing houses, etc.) should be identified separately under their respective activity codes.

<sup>3</sup>Code 6710 "Executive, legislative, and judicial functions" include only the central and administrative office activities of the agencies or special authorities involved in government functions, including the

71	Cultural activities and nature exhibitions.	711	Cultural activities.	7111	Libraries	823
				7112	Museums.	Incl. 841
				7113	Art galleries. <sup>2</sup>	Incl. 841
				7119	Other cultural activities, NEC.	
		712	Nature exhibitions.	7121	Planetaria.	
				7122	Aquariums.	Incl. 8421
				7123	Botanical gardens and arboretums.	Incl. 842
				7124	Zoos.	
				7129	Other nature exhibitions, NEC.	
		719	Other cultural activities and nature exhibitions, NEC.	7191	Historic and monument sites. <sup>3</sup>	
				7199	Other cultural activities and nature exhibitions, NEC.	
72	Public assembly.	721	Entertainment assembly.	7211	Amphitheatres.	
				7212	Motion picture theaters.	Incl. 7831
				7213	Drive-in movies.	Incl. 7831
				7214	Legitimate theaters.	
				7219	Other entertainment assembly, NEC.	
		722	Sports assembly. <sup>4</sup>	7221	Stadiums. <sup>5</sup>	Incl. 7941
				7222	Arenas and field houses.	
				7223	Race tracks. <sup>6</sup>	Incl. 7948
				7229	Other sports assembly, NEC.	
		723	Public assembly, miscellaneous purposes.	7231	Auditoriums.	
				7232	Exhibition halls.	
				7239	Other miscellaneous assembly, NEC.	
		729	Other public assembly, NEC.	7290	Other public assembly, NEC.	
73	Amusements.	731	Fairgrounds and amusement parks.	7311	Fairgrounds.	Incl. 7949
				7312	Amusement parks.	Incl. 7949

<sup>2</sup>Fairgrounds are Class B Land; when used for automobile and motorcycle racing, Fairgrounds are Class C Land.

## LEVELS—Continued

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>SIC Reference</i> <sup>†</sup>	<i>Lea</i>
73	Amusements—Continued	739	Other amusements, NEC.	7391	Penny arcades.	Incl. 7949	
				7392	Miniature golf.	Incl. 7949	
				7393	Golf driving ranges.	Incl. 7949	
				7394	Go-cart tracks.	Incl. 7949	
				7399	Other amusements, NEC.	Incl. 7949	
74	Recreational activities.	741	Sports activities.	7411	Golf courses (without country club).		
7942				7412	Golf courses (with country club).	7947	
				7413	Tennis courts.		
				7414	Ice skating.	Incl. 7945	
				7415	Roller skating.	Incl. 7945	
				7416	Riding stables.		
				7417	Bowling.	Incl. 7931	
				7418	Skiing and tobogganing.		
				7419	Other sports activities, NEC.		
		742	Playgrounds and athletic areas.	7421	Play lots or tot lots. <sup>7</sup>		
				7422	Playgrounds. <sup>8</sup>		
				7423	Playfields or athletic fields. <sup>9</sup>		
				7424	Recreation centers (general). <sup>10</sup>		
				7425	Gymnasiums and athletic clubs.	Incl. 7949	
				7429	Other playground and athletic areas, NEC.		
		743	Swimming areas.	7431	Swimming beaches. <sup>11</sup>		
				7432	Swimming pools. <sup>12</sup>	7944	
		744	Marinas. <sup>13</sup>	7441	Yachting clubs.	Incl. 7949	
				7442	Boat rentals and boat access sites.		
				7449	Other marinas, NEC.		
		749	Other recreation, NEC.	7491	Camping and picnicking areas. <sup>14</sup>		
				7499	Other recreation, NEC.		
75	Resorts and group camps.	751	Resorts.	7511	General resorts. <sup>15</sup>		
				7512	Dude ranches.	Incl. 7032	
				7513	Health resorts.	Incl. 8092	
				7514	Ski resorts.		
				7515	Hunting and fishing clubs. <sup>18</sup>	Incl. 7032	
				7519	Other resorts, NEC.		
		752	Group or organized camps.	7520	Group or organized camps. <sup>17</sup>	Incl. 7032	
76	Parks.	761	Parks—general recreation.	7610	Parks—general recreation. <sup>18</sup>		
		762	Parks—leisure and ornamental.	7620	Parks—leisure and ornamental. <sup>19</sup>		
		769	Other parks, NEC.	7690	Other parks, NEC.		
79	Other cultural, entertain- ment, and recreational activities, NEC.	790	Other cultural, entertainment, and recreational activities, NEC.	7900	Other cultural, entertainment, and recreational activities, NEC.		

## FOOTNOTES

contain such facilities as sand boxes, slides, teeters, swings, climbing apparatus, etc. They are identified and coded only when found as a separate activity and not subsidiary to or serving another activity (e.g., apartment house or playground).

<sup>1</sup>The SIC codes are listed for purposes of reference. They are the only when found as a separate activity and not subsidiary to or serving another activity (e.g., a school).

<sup>2</sup>Code 7113 "Art galleries" do not include those galleries that sell art objects commercially. Commercial sales are coded 5999, "Other retail trade, NEC."

<sup>3</sup>Code 7191 "Historic and monument sites" include those locations set aside for no other purpose than to commemorate an historical event, provided. They are identified and coded only when found as a separate activity and not subsidiary to or serving another activity (e.g., a school).

<sup>4</sup>Code 722 "Sports assembly" includes only the public assembly areas used for nonparticipating sports.

<sup>5</sup>Code 7221 "Stadiums" include those used for individual sports, e.g., baseball or football, as well as those used for several sports activities. The recreation centers may contain, but are not limited to a gymnasium, social or play rooms, game rooms, arts and craft shops, etc.

<sup>6</sup>Code 7223 "Race tracks" include those used for individual racing activities, e.g., horse racing and automobile racing, as well as those used for several racing activities.

<sup>7</sup>Code 7421 "Play lots or tot lots" are small areas developed especially for preschool or elementary school aged children. They may include diversified recreation for a wide variety of activities for all ages and interests.

<sup>8</sup>Code 7422 "Playgrounds" are areas that have been developed for active play and recreation. They are identified and coded only when found as a separate activity and not subsidiary to or serving another activity (e.g., a school).

<sup>9</sup>Code 7423 "Playfields or athletic fields" well as a field(s) or court(s) for competitive ball, or tennis). Bleachers or grandstands may be provided. They are identified and coded only when found as a separate activity and not subsidiary to or serving another activity (e.g., a school).

<sup>10</sup>Code 7414 "Recreation centers (general)" recreation for a wide variety of activities for all ages and interests. The recreation centers may contain, but are not limited to a gymnasium, social or play rooms, game rooms, arts and craft shops, etc.

<sup>11</sup>Code 7431 "Swimming beaches" are beach areas that have been set aside specifically for the purpose of swimming. They are identified only when they are not a part of a larger activity (e.g., a park).

<sup>12</sup>Code 7432 "Swimming Pools" are separately identified if they are especially for preschool or elementary school aged children. They may include diversified recreation for a wide variety of activities for all ages and interests. The recreation centers may contain, but are not limited to a gymnasium, social or play rooms, game rooms, arts and craft shops, etc.

Footnotes continued on following page.

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

independent of other functions (e.g., code 72, "Public assembly" or areas on which code 11, "Household units"). They may be indoor or outdoor pools. purposes of hunting

<sup>13</sup>Code 744 "Marinas" include marine terminals and associated areas that are primarily for recreational marine craft. The sale and identifying the repair of recreational marine craft is coded 5591, "Marine craft and accessories — retail" and code 3443, "Ship and boat building and repair," respectively.

<sup>14</sup>Code 7491 "Camping and picnicking areas" are separately identified include, but are not

<sup>16</sup>Code 7515 "Hunting and fishing clubs" include artificially propagated game or fish are released for fishing. If there are other uses made of the property (e.g., agricultural use), these "other" uses should take priority in activity of the parcel.

<sup>17</sup>Code 7520 "Group or organized camps" children, as well as Boy Scout and Girl Scout camps.

<sup>18</sup>Code 7610 "Parks — general recreation" may

if they are not a part of a larger activity (e.g., a park). limited to, picnic areas, bathing beaches, playfields, hiking trails;  
 -15Code 7511 "General resorts" have rooms for 20 or more persons camping grounds, and other manmade recreation facilities.  
 and have provision for at least 2 types of recreational activities, excluded largely for scenic  
 ing lawn games, children's playgrounds, and swimming pools. or leisure purposes. They may contain beaches, children's play facilities, monuments, or statues.

Code	Category	Code	Category	Code	Category	SIC Reference <sup>1</sup>	Lat Cl
81	Agriculture. <sup>2</sup>	811	Farms (predominant crop, fibers). <sup>3</sup>	8111	Farms (predominant crop, cotton).		
				8119	Farms (other type fiber crops).		
		812	Farms (predominant crop, cash grains). <sup>3</sup>	8120	Farms (predominant crop, cash grains).		
		813	Farms (field crops other than fiber or cash grain crops). <sup>3</sup>	8130	Farms (field crops other than fiber or cash grain crops).		
		814	Farms (predominant crop, fruits, tree nuts, or vegetables). <sup>3</sup>	8141	Farms (predominant crop, fruits).		
				8142	Farms (predominant crop, tree nuts).		
				8143	Farms (predominant crop, vegetables).		
		815	Farms (predominantly dairy products). <sup>3</sup>	8150	Farms (predominantly dairy products).		
		816	Farms and ranches (livestock other than dairy). <sup>3</sup>	8161	Farms and ranches (predominantly cattle).		
				8162	Farms and ranches (predominantly hog).		
				8163	Farms and ranches (predominantly sheep).		
				8164	Farms and ranches (predominantly goat).		
				8169	Farms and ranches (other livestock), NEC.		
		817	Farms (predominantly poultry). <sup>3</sup>	8170	Farms (predominantly poultry).		
		818	Farms (general no predominance). <sup>3</sup>	8180	Farms (general no predominance).		
		819	Other agriculture and related activities, NEC.	8191	Range and grassland pastures (not farm or ranch). <sup>4</sup>		
				8192	Horticultural specialties.	0192	
				8193	Apiary farms.		
	Incl. 0193			8194	Farms and ranches (predominantly horse raising).		
				8199	Other agriculture and related activities, NEC.		

82	Agricultural related activities.	821	Agricultural processing.	8211	Cotton ginning and compressing.
0712				8212	Grist milling services.
0713				8213	Corn shelling, hay baling, and threshing services.
0714				8214	Contract sorting, grading, and packing services (fruits and vegetables).
0715				8219	Other agricultural processing services, NEC.
		822	Animal husbandry services.	8221	Veterinarian services.
Incl. 0722				8222	Animal hospital services.
Incl. 0722				8223	Poultry hatchery services.
0723				8229	Other animal husbandry services, NEC.
0729C					

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO , THREE , AND FOUR DIGIT LEVELS — Continued**

<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>Code</i>	<i>Category</i>	<i>SIC Reference<sup>†</sup></i>	<i>Land Use Code</i>
82	Agricultural related activities — Continued	829	Other agricultural related activities, NEC.	8291	Horticultural services.	0731	
				8299	Other agricultural related activities, NEC.		
83	Forestry activities and related services. <sup>6</sup>	831	Commercial forestry production. <sup>7</sup>	8311	Timber production — predominantly for pulp wood.		
				8312	Timber production — predominantly for saw logs.		
				8313	Timber production — predominantly for veneer logs.		
				8314	Timber production — mixed uses.		
				8315	Tree products production — predominantly gum extracting (except pine gum) and bark.	0842	
				8316	Tree products production — predominantly pine gum extraction.	0843	
				8317	Timber and tree products production — mixed uses.		
				8319	Other commercial forestry production, NEC.		
		832	Forestry services.	8321	Forest nurseries.	0822	
				8329	Other forestry services, NEC.	0851	
		839	Other forestry activities and related services, NEC.	8390	Other forestry activities and related services, NEC.		
84	Fishing activities and re	841	Fisheries and marine products. <sup>8</sup>	8411	Finfish fisheries.	0912	



			8412	Shellfish fisheries.	0913	
			8419	Other fisheries and marine products, NEC.	0914 and 0919	
	842	Fishery services.	8421	Fish hatcheries.	Incl. 0989	
			8429	Other fishery services, NEC.	Incl. 0989	
	849	Other fishery activities and related services, NEC.	8490	Other fishery activities and related services, NEC.		
85	Mining activities and related services.	851	Metal ore mining.	8511	Iron ore mining.	101
			8512	Copper ore mining.	102	
			8513	Lead and zinc ore mining.	103	
			8514	Gold and silver ore mining.	104	
			8515	Bauxite and other aluminum ore mining.	105	
			8516	Ferroalloy ore (except vanadium) mining.	106	
			8519	Other metal ore mining, NEC.	109	
	852	Coal mining.	8521	Anthracite coal mining.	111	
			8522	Bituminous coal mining.	1211	
			8523	Lignite coal mining.	1212	
	853	Crude petroleum and natural gas.	8530	Crude petroleum and natural gas.	131	
	854	Mining and quarrying of non metallic minerals (except fuels).	8541	Dimension stone.	141	
			8542	Crushed and broken stone (including riprap) quarrying.	142	
			8543	Sand and gravel quarrying.	144	
			8544	Clay, ceramic, and refractory minerals mining.	145	
			8545	Chemical and fertilizers (mineral) mining.	147	
			8549	Other mining and quarrying of non metallic minerals (except fuels), NEC.	148	
	855	Mining services.	8551	Metal mining services.	108	
			8552	Coal mining services.		
1112 and 1213			8553	Crude, petroleum and gas field services.	138	
			8554	Nonmetallic mining (except fuel) services.	148	
			8559	Other mining services, NEC.		
89	Other resource: production and extraction, NEC.	890	Other resource: production and extraction, NEC.	8900	Other resource: production and extraction, NEC.	

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**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO, THREE, AND FOUR DIGIT LEVELS — Continued**

**FOOTNOTES**

the public domain in

<sup>4</sup>The SIC codes are listed for purposes of reference. They are the only preliminary codes in the SIC system that most nearly correspond to the 4 digit land use activity indicated. (See ch. III, Se. A3, "The Use of Standard and kindred products—

farm or ranch. These areas are usually part of

which grazing has been permitted.

<sup>5</sup>Code 821 "Agricultural processing" includes

processing of agricultural products. Any

canning, or manufacturing is coded 21, "Food

Industrial Classification Nomenclature.”) A dash indicates that there is no corresponding SIC code.

<sup>2</sup>Code 81 “Agriculture.” A parcel of land is considered to be in agricultural use if 10 or more acres are under cultivation, in tree or bush crops, or are used for livestock or poultry purposes. The 10 acres forested areas. However, may include the area of the residence, if there is one, and the immediate associated area surrounding the residence.

<sup>3</sup>A farm may consist of several ownership or rented parcels of land located within the that are noncontiguous. However, each parcel should be linked together as one “farm management unit,” and identified by only one 3- or 4 digit category, e.g., code 8120, “Farms (predominant crops, cash are being managed or grains).”

Using the “Farm use” categories in app. 2 of this report, farm (i.e., “Industrial wood” includes the farm management units) are to be classified by the most predominant use made of the land (the farm use taking up the greatest percentage of farm area) excluding the areas used by farm residences and associated buildings, nonresident farm buildings, areas in feed crops, and grazed and nongrazed forested areas. Exceptions to this rule are:

a. If 50 percent or more of the value of the farm products sold in the areas not on farms; previous year came from the sale of dairy products, or the sale of cows and calves, the farm is identified as “Farm (predominantly dairy products),” code 8150.

b. If 50 percent or more of the value of the farm products sold in the catching or taking the previous year came from the sale of livestock, wool, or mohair, sponges, turtles, frogs, etc. the farm is identified as “Farms and ranches (livestock, other than processing, e.g., salting, the farm is identified as “Farms and ranches (livestock, other than canning, or manufacturing dairy),” code 816.

c. If 50 percent or more of the value of the farm products sold in the previous year came from the sale of poultry and eggs, the farm facilities are an integral part of a single fishery operation. When docking facilities serve several separate fishery establishments, they are coded 4414, “Marine terminals each came to less than 50 percent of the value of the farm products

manufacturing.”

<sup>4</sup>Code 83 “Forestry activities and related services.” The categories in this classification are based upon primary use recognized that other activities, e.g., recreation stock may also be taking place within these these types of activities are considered secondary coded. Activities such as mining (code 85), permanent camping areas (code 7491), and logging camps (code 2410); forested areas should be separately identified.

<sup>7</sup>Code 831 “Commercial forestry production” forested areas not on the farms or ranches that have been set aside to grow tree crops for tree products such as sap, bark, or seeds; commercial roundwood products, such as saw logs and pulpwood, but excludes fuel wood and fence posts. “Forest withdrawn from any commercial use of the trees; “Parks,” e.g., national or State parks, are also a type of forest reserve, but because of their designation for recreational activity, they should be identified as “Parks” under code 76. Forested ranches, or estates with no commercial use made of the trees are coded 922, “nonreserve forests (undeveloped).”

<sup>8</sup>Code 841 “Fisheries and marine products” establishments primarily engaged in commercial fishing, of shellfish, or the gathering of seaweed; These activities may include some preliminary However, any extensive processing, packing, of these products should be coded under “Food and kindred products manufacturing,” code 21. These categories also facilities and their associated areas when these part of a single fishery operation. When docking separate fishery establishments, they are coded (predominantly fishing vessels).”

—sold in the previous years, and if there are 3 or more “Farm uses”<sup>9</sup>Code 85 “Mining activities and related services” include those (e.g., corn crop, cotton crop, etc.) within a farm, none of which takes surface areas being used for mining or drilling purposes. the process may be tunnel excavation, strip mining, quarrying, or by drilling. —up 25 percent of the total farm area (excluding those areas referred to above), the farm is identified as “Farms (general —no predomi These categories also include those areas where preliminary processing of raw materials (e.g., washing, crushing, —nance),” code 8180. screening, etc.) are taking place if these processes are an integral part of the —<sup>4</sup>Code 8191 “Range and grass land pastures (not form or ranch)” mining operation. include grasslands used for grazing purposes that are not a part of a

Code	Category	Code	Category	Code	Category	SIC Reference <sup>1</sup>	Land Use Classification
91	Undeveloped and unused land area (excluding noncommercial forest development).	910	Undeveloped and unused land area (excluding noncommercial forest development).	9100	Undeveloped and unused land area (excluding noncommercial forest development). <sup>2</sup>		
92	Noncommercial forest development.	921	Forest reserves. <sup>3</sup>	9211	Forest reserves (wilderness areas).		
				9212	Forest reserves (wildlife refuges).		
				9219	Other forest reserves, NEC.		
		922	Nonreserve forests (undeveloped).	9220	Nonreserve forests (undeveloped). <sup>4</sup>		
93	Water areas.	931	Rivers, streams, or creeks.	9310	Rivers, streams, or creeks.		
		932	Lakes.	9320	Lakes. <sup>5</sup>		
		933	Bays or lagoons.	9330	Bays or lagoons.		
		934	Oceans and seas.	9340	Oceans and seas.		
		939	Other water areas, NEC.	9390	Other water areas, NEC.		
94	Vacant floor area.	940	Vacant floor area.	9400	Vacant floor area.		
95	Under construction.	951	Under construction (residential).	9510	Under construction (residential). <sup>6</sup>		
		952	Under construction (nonresidential).	9520	Under construction (nonresidential). <sup>7</sup>		
99	Other undeveloped land and water areas, NEC.	990	Other undeveloped land and water areas, NEC.	9900	Other undeveloped land and water areas, NEC.		

See footnotes on following page. B-24

**B. A STANDARD SYSTEM FOR IDENTIFYING AND CODING LAND USE ACTIVITIES — TWO , THREE , AND FOUR DIGIT LEVELS — Continued**

**FOOTNOTES** <sup>4</sup>Code 9220 “Nonreserve forests (undeveloped)” are major forested areas not on a farm, ranch, or large estate with no commercial use made of the trees. It is recognized that other activities such as recreation or

<sup>1</sup>The SIC codes are listed for purposes of reference. They are the codes in the SIC system that most nearly correspond to the 4 digit

land use activity indicated. (See ch. III, Se. A3, "The Use of Standard Industrial Classification Nomenclature.") A dash indicates that there is no corresponding SIC code.

<sup>3</sup>Code 9100 "Undeveloped and unused land area (excluding noncommercial forest development)" identifies those parcels of land that appear to be undeveloped or if previously developed, are presently vacant and unused. This category includes such areas as vacant lands that once were farms, as well as vacant parcels where structures have been demolished. Vacant nonresidential buildings are coded 9400, "Vacant floor area."

<sup>3</sup>Code 921 "Forest reserves" are forested areas withdrawn from commercial utilization, and which are reserved through statute or administrative regulation for specific conservation purposes. Forested areas designated as park sites may also be restricted from commercial forestry production, but because of their designation for recreational activity they should be identified and coded as "Parks" (code 76).

the grazing of livestock may also be taking place within these forested areas. However, these types of activities are nature and not coded. Activities such as mining (code 85), permanent camping areas (code 7491), and logging camps (code 2410), located within these forested areas should be separately identified.

<sup>5</sup>Code 9320 "Lakes" include permanent lakes with a minimum size of 1 acre. Impounded surface water areas used for storage should be identified as "Water storage," code 4833.

<sup>6</sup>Code 9510 "Residential facilities under construction to be completed when all exterior windows and doors are installed and the usable floors are in place. If construction has not reached this point, the parcel should be identified as "Under construction (residential)," code 9510

<sup>7</sup>Code 9520 "Under construction (nonresidential)" is used only if there is no means of identifying the activity or occupy the structure when it is completed.

(Source: Amended at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

TITLE 35: ENVIRONMENTAL PROTECTION  
 SUBTITLE H: NOISE  
 CHAPTER I: ILLINOIS POLLUTION CONTROL BOARD

PART 910  
 MEASUREMENT PROCEDURES FOR THE ENFORCEMENT  
 OF 35 ILL. ADM. CODE 900 & 901

Section	
910.100	General
910.102	Instrumentation
910.103	Definitions
910.104	Measurement Techniques for 35 Ill. Adm. Code 900
910.105	Measurement Techniques for 35 Ill. Adm. Code 901
910.106	Protocols for Determination of Sound Levels
910.107	Measurement Techniques for Highly-Impulsive Sound Under 35 Ill. Adm. Code 104
910.APPENDIX A	Tables of Long-Term Background Ambient Noise
910. TABLE A	Daytime long-term background ambient $L_{eq}$ levels in decibels by land use categories and 1/3 octave-band level

910. TABLE B	Nighttime long-term background ambient $L_{eq}$ levels in decibels by land use categories and 1/3- octave-band level
910. TABLE C	Daytime long-term background ambient $L_{eq}$ levels in decibels by land use categories and octave-band level
910. TABLE D	Nighttime long-term background ambient $L_{eq}$ levels in decibels by land use categories and octave-band level

AUTHORITY: Implementing and authorized by Sections 25 and 27 of the Environmental Protection Act [415 ILCS 5/25 and 27].

SOURCE: Adopted in R03-9 at 30 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_.

#### Section 910.100          General

This Part specifies the instrumentation to be used when conducting acoustical noise measurements and sets forth the specific acoustical measurement techniques to be employed when conducting time-averaged sound level ( $L_{eq}$ ) measurements. The instrumentation requirements and measurement techniques as more specifically set forth in this Part must be used in determining whether a noise source is in compliance with 35 Ill. Adm. Code 900 and 901.

#### Section 910.102          Instrumentation

##### a)          Sound Measuring Equipment

- 1)          An integrating sound level meter used alone or used in conjunction with an octave-band or 1/3 octave-band filter set or a real-time sound analyzer (octave-band or 1/3 octave-band) must conform with the following standards incorporated by reference at 35 Ill. Adm. Code 900.106:
  - A)          ANSI S1.4 – 1983 (R2001) “American National Standard Specification for Sound Level Meters”, and ANSI S1.4 A-1985 “Amendment to ANSI S1.4-1983.”
  - B)          ANSI S1.11 - 1986 (R1998) “American National Standard Specifications for Octave-Band and Fractional-Octave-Band Analog and Digital Filters.”
  - C)          ANSI S1.6 – 1984 (R2001) “American National Standard Preferred Frequencies, Frequency Levels, and Band Numbers for Acoustical Measurements.”
  - D)          ANSI S1.8 - 1989 “American National Standard Reference Quantities for Acoustical Levels.”
  - E)          International Electrotechnical Commission, IEC 804-2000 Integrating/Averaging Sound Level Meters.

- 2) A magnetic tape recorder, graphic level recorder or other indicating device used must meet the requirements of the Society of Automotive Engineers (SAE) Recommended Practice J184 "Qualifying a Sound Data Acquisition System," November 1998, incorporated by reference at 35 Ill. Adm. Code 900.106
  - 3) The laboratory calibration of instrumentation used for acoustic measurement must be traceable to the National Bureau of Standards, and must be performed no less often than once every 12 months.
  - 4) For outdoor measurement, a windscreen must be attached to the microphone.
- b) Weather Measuring Equipment
- 1) An anemometer and compass or other devices must be used to measure wind speed and direction in accordance with the manufacturer's recommended procedures.
  - 2) A thermometer, designed to measure ambient temperature, must be used in accordance with the manufacturer's recommended procedures.
  - 3) A hygrometer must be used in accordance with the manufacturer's recommended procedures to measure the relative humidity.
  - 4) A barometer must be used in accordance with the manufacturer's recommended procedures to measure the barometric pressure.

#### Section 910.103 Definitions

The definitions contained in 35 Ill. Adm. Code 900.101 apply to this Part.

#### Section 910.104 Measurement Techniques for 35 Ill. Adm. Code 900

Sound pressure level measurements are not required to establish a violation of 35 Ill. Adm. Code 900.102 (nuisance noise). However, sound pressure level measurements may be introduced as corroborating evidence when alleging a violation of 35 Ill. Adm. Code 900.102. If sound pressure level measurements are collected, manufacturer's instructions must be followed for the equipment used and 35 Ill. Adm. Code 910.105 may be used as guidance in gathering data.

#### Section 910.105 Measurement Techniques for 35 Ill. Adm. Code 901

Sound pressure level measurements must be obtained in accordance with the following measurement techniques to determine whether a noise source is in compliance with 35 Ill. Adm. Code 901:

a) Site Selection

- 1) Measurements may be taken at one or more microphone positions within the appropriate receiving land. Measurement instruments must be set up outdoors within the boundaries of the receiving land for the purpose of determining whether a noise source is in compliance with 35 Ill. Adm. Code 901.
- 2) Measurement instruments must be set up not less than 25 feet (7.6 meters (m)) from the property-line-noise-source. The 25-foot (7.6 m) setback requirement is from the noise source and not the property line unless the noise source is contiguous to the property line.
- 3) Other measurement locations may be used for investigatory purposes such as, but not limited to, the following:
  - A) Determining the extent of noise pollution caused by the source of sound;
  - B) Determining the ambient; and
  - C) Analyzing those acoustical parameters that describe the sound source.
- 4) For measurements of sound sources with no audible discrete tones, microphones should not be set up less than 25 feet (7.6 m) from any reflective surface that may affect data. If measurements must be taken within 25 feet (7.6 m), the effect, if any, of the reflective surface on the measured data must be determined.
- 5) For measurements of sound sources with audible discrete tones, microphones must not be set up less than 50 feet (15.2 m) from any reflective surface that may affect data. If measurements must be taken within 50 feet (15.2 m), the effect, if any, of the reflective surface on the measured data must be determined.
- 6) Objects with small dimensions (trees, posts, bushes, etc.) must not be within 5 feet (1.5 m) of the microphone position. If measurements must be taken within 5 feet (1.5 m) of such objects, the effect, if any, on the measured data must be determined.

b) Instrumentation Set Up

- 1) A tripod must be set at the chosen site. The tripod must be extended to a height between 3 feet 8 inches (1.12 m) and 4 feet 10 inches (1.47 m) above ground.

- 2) A microphone must be attached to the appropriate end of a 5-foot (1.5 m) or longer cable and must be affixed to the top of the tripod. The other end of the cable must be connected to the measuring instrument.
- 3) The angle of incidence of the microphone must be adjusted to yield the flattest frequency response in accordance with the manufacturer's specifications.
- 4) The measuring instrument must be separated from the microphone so as to minimize any influence on the measurements. The cable movement must be minimized during the measurement period.

c) Measurement Site Operation and Instrument Calibration

- 1) Before taking sound pressure level measurements, measure and record (near the measurement site):
  - A) Wind speed and direction;
  - B) Ambient temperature;
  - C) Relative humidity; and
  - D) Barometric pressure.
- 2) Turn the measuring instrument on and allow the instrument to stabilize. Monitor and record the battery condition of the calibrator and all measuring instruments.
- 3) Turn the calibrator on at its appropriate frequency. Allow the calibrator to stabilize and calibrate the measuring system according to the manufacturer's specifications. After the measuring system has been calibrated, remove the calibrator and attach a windscreen to the microphone.
- 4) Adjust the microphone to the angle of incidence that will yield the frequency response in accordance with the manufacturer's specifications.
- 5) Measure the sound pressure level data within the limitations of subsection (d) and according to the manufacturer's recommended procedures. Other sound pressure levels may be used for investigatory purposes such as, but not limited to, the following:
  - A) Determining the extent of noise pollution caused by the source of sound;



- B) Determining the ambient; and
  - C) Analyzing those acoustical parameters that describe the sound source.
- 6) While sound measurements are being taken, the operator must be separated from the microphone so as to minimize any influence on the measurements.
  - 7) While measurements are being taken, visual and aural surveillance of extraneous sound sources and varying wind conditions must be made to insure that the conditions of measurement are accurately known. Record any variations in these parameters that may affect data. The number and basis for affected data block must be recorded. When using a tape recorder, voice commentary concerning conditions will be recorded on the cue track.
  - 8) To minimize wind effects on the microphone, sound measurements must not be taken when the wind velocity is greater than 12 miles per hour (5.4 m/second) at the microphone position.
  - 9) For the purposes of data correction, the ambient sound at the measurement site must be determined by means of measurement or analysis.
  - 10) After taking sound pressure level measurements, remove the windscreen and attach the calibrator to the microphone. Turn the calibrator on at its appropriate frequency. After allowing the calibrator to stabilize, monitor and record the measuring system response. When the measuring system response varies by more than  $\pm 0.5$  dB from the most recent field calibration, the sound pressure level measurements obtained since such most recent field calibration cannot be used for enforcement purposes.
  - 11) Before removing the calibrator from the microphone, turn the calibrator off. If the ambient sound has not been determined by means of measurement, determine the noise floor of the measuring system. If the noise floor is within 10 dB of the measured sound pressure level data, such noise floor measurements must be recorded.
  - 12) At the end of the sound survey, monitor and record the battery condition of the calibrator and all measuring instruments. Near the measurement site, measure and record:
    - A) Windspeed and direction;
    - B) Ambient temperature;

- C) Relative humidity; and
  - D) Barometric pressure.
- 13) Record the physical and topographical description of the ground surface within the vicinity of the measurement site, survey site location, a description of the sound source, a diagram of the area, the location of reflective surfaces near the microphone, and the approximate location of the noise source relative to the microphone position.
- 14) A magnetic tape recorder may be used to preserve the raw data. Calibration signals must be recorded at the beginning and end of each tape as well as at intermediate times such as when relocating to a new measurement site. Voice commentary concerning local conditions and affected data blocks must be recorded on the cue track. The original tape recording must be preserved for subsequent evaluation. Laboratory analyses may be performed on magnetic tape recorded field data. A description of the laboratory instrumentation and procedures must be recorded. Analyses used in the laboratory must be correlated to field measurement techniques.
- d) Limiting Procedures for Specific Types of Data Acquisition
- 1) For measurements of non-impulsive sound with audible discrete tones, 1/3 octave-band sound pressure levels must be obtained in determining whether a noise source is in compliance with 35 Ill. Adm. Code 901.106.
  - 2) For measurements of non-impulsive sound with no audible discrete tones, octave-band sound pressure levels must be obtained in determining whether a noise source is in compliance with 35 Ill. Adm. Code 901.102 and 901.103.
- e) Correction Factors
- If necessary, correction factors rounded to the nearest 1/2 decibel must be applied to sound pressure level measurements. The correction factors applicable to the measurement system may include, but are not limited to, corrections for windscreen interference and the sound pressure level difference between consecutive field calibrations. Such calibration correction factors must only be used to make negative corrections (subtraction from the field data). In no case must such calibration correction factors be added to the measured sound pressure levels so as to raise the sound pressure level field data. The correction factors applicable to the measurement site may include, but are not limited to, corrections for reflective surfaces and ambient sound.

## Section 910.106 Protocols for Determination of Sound Levels

a) The raw data collection procedures for the determination of equivalent continuous sound pressure level ( $L_{eq}$ ) are described in this Section using as an example the determination of a 1-hour  $L_{eq}$  corrected for ambient. The following procedures must be used:

1) Using small blocks:

- A) The 1-hour interval is divided into many small blocks of time so that corruption of the data from short-term background transient sound and loss of data can be limited to the corrupted or bad blocks. The block duration in seconds must remain fixed for any measurement hour. The duration must be neither less than 10 seconds nor greater than 100 seconds. For example, if the block duration is chosen to be 60 seconds (1 minute), then the data collection proceeds for 60, 1-minute periods of measurement.
- B) The collected data for each block represents a block duration  $L_{eq}$  (or sound exposure level (SEL)) in octave-bands (or 1/3 octave-bands if prominent discrete tones may be present).
- C) Data for any block corrupted by one or more short-term background transient sounds must be deleted.
- D) After deleting corrupted data blocks, there will be a fixed number of “good” data blocks remaining. This number is designated as  $N_{PLNS}$ , where PLNS stands for Property-Line-Noise-Source. These remaining “good” blocks must be numbered consecutively. The subscript  $i$  is used to denote the numbering of the blocks in time order after corrupted data blocks have been deleted.
- E) The data for the  $N_{PLNS}$  remaining blocks are time averaged on an energy basis by octave (or 1/3 octave-band) using Equation 1 below. In this equation, two subscripts are used,  $i$  to designate time and  $j$  to designate the specific frequency, either an octave-band or 1/3 octave-band. The raw, 1-hour  $L_{eq}$  in the  $j$ th frequency band is given by:

$$L_{eqj} = 10 \log \left( \frac{1}{N_{PLNS}} \sum_{i=1}^{N_{PLNS}} 10^{\left( \frac{L_{eqij}}{10} \right)} \right) \quad \text{[Equation 1]}$$

where  $L_{eqj}$  is the  $L_{eq}$  in the  $j$ th frequency band for the  $i$ th non-deleted data block.

- F) In terms of SEL, the raw SEL in the  $j$ th frequency band is given by:

$$SEL_j = 10 \log \left( \sum_{i=1}^{N_{PLNS}} 10^{\left( \frac{SEL_{ij}}{10} \right)} \right) \quad [\text{Equation 2}]$$

- G) The raw, 1-hour  $L_{eq}$  in the  $j$ th frequency band is given in terms of the corresponding  $SEL_j$  by:

$$L_{eqj} = SEL_j + 10 \log \left( \frac{3600}{N_{PLNS} \Delta T} \right) \quad [\text{Equation 3}]$$

Where  $T$  is the block duration in seconds,  $N_{PLNS}$  is the number of non-discarded data blocks, and 3600 is the number of seconds in an hour.

2) Continuous Data Collection:

- A) The measuring instrument must be adjusted to continuously measure sound pressure and accumulate  $L_{eq}$  for each block of time. For convenience, the hour may be split into several smaller blocks such as 10, 6-minute blocks or 4, 15-minute blocks, etc.
- B) A switch on the measuring instrument must be available to inhibit data collection whenever a short-term background transient sound occurs. This switch shall be used to prevent short-term background ambient sounds from corrupting the data.
- C) Data collection must proceed for one hour. The energy average of the several measured  $L_{eqij}$  each weighted by the number of seconds actually accumulated during the  $i$ th block results in the raw, 1-hour  $L_{eq}$  in each frequency band given by:

$$L_{eqj} = 10 \log \left( \frac{1}{T_{PLNS}} \sum_{i=1}^{N_{PLNS}} T_i 10^{\left( \frac{L_{eqij}}{10} \right)} \right) \quad [\text{Equation 4}]$$

Where  $L_{eqij}$  is the  $L_{eq}$  in the  $j$ th frequency band for the  $i$ th large block.  $T_i$  is the actual number of seconds of “good” data accumulated in the  $i$ th block of time (e.g., 6 to 15 minutes); and

$$T_{PLNS} = \sum_{i=1}^{N_{PLNS}} T_i \quad [\text{Equation 5}]$$

3) Minimum data collection requirements:

- A) Initial Measurement Duration. The property-line-noise-source measurements must proceed initially for one hour. Because of correction for short-term background transient sounds, actual reported data collection time  $T$ , in seconds, may be less than 3600 seconds (one hour).
- i) If small blocks of data are used for data collection, then the total measurement duration in seconds,  $T_{PLNS}$ , is given by  $N_{PLNS} T$ , where  $T$  is the length of each block in seconds and  $N_{PLNS}$  is the number of non-discarded blocks. If data inhibition is used for data collection, then  $T_{PLNS}$  is the number of non-inhibited seconds during the measurement hour. In either case,  $T_{PLNS}$  must be no less than 900 seconds.
  - ii) If very few blocks were used for data collection, then the duration of each block,  $T$ , may be too long and should be reduced.
  - iii) For either data collection method, sounds considered to be short-term transient may actually be part of the long-term background ambient and should be so redefined.
- B) Extended Measurement Duration. If  $T_{PLNS}$  is less than 900 seconds during the first hour of measurements, the raw data collection procedures must be appropriately modified and new measurements must proceed for an additional hour. If  $T_{PLNS}$  after combining the first and the second hour of measurements is also less than 900 seconds, then the raw data collection must continue using the data inhibition method or method employed during the second hour until  $T_{PLNS}$  is greater than or equal to 900 seconds.

4) Correction for Long-Term Background Ambient Sound:

- A) The raw 1-hour  $L_{eq}$  must be corrected for long-term background ambient sound. Subsection (b) of this Section describes methods to obtain the long-term background ambient sound level in the  $j$ th frequency band. The correction is dependent on the difference (in decibels) between the raw, 1-hour,  $j$ th band property-line-noise-source:  $L_{eqj}$  and corresponding  $j$ th band long-term background ambient sound level. The correction to be applied is as follows:

- i) If the difference between the raw 1-hour  $L_{eq}$  and the long-term background ambient sound is larger than 10 decibels, then the correction must be set to 0.
- ii) If the difference between the raw 1-hour  $L_{eq}$  and the long-term background ambient sound difference is less than 3 decibels, then the  $j$ th frequency-band level,  $L_{eqj}$ , must be set equal to 0.
- iii) If the difference between the raw 1-hour  $L_{eq}$  and the long-term background ambient sound is between 3 and 10 decibels, then the correction given in Table 1 below must be subtracted from the raw, 1-hour property-line-noise-source  $L_{eqj}$

Table 1  
Corrections in dB for long-term  
background ambient sound

Difference (dB)	Correction (dB)
3	3
4	2.3
5	1.7
6	1.3
7	1.0
8	0.7
9	0.6
10	0.5

- B) The long-term background ambient corrected level must be the property-line-noise-source  $L_{eqj}$  reported for the  $j$ th frequency band.
- b) Obtaining the background ambient sound level:
- 1) The background ambient must be measured for the purposes of this Section during a 10-minute interval.
  - 2) Long-term background ambient measurement procedures are similar to procedures to measure the property-line-noise-source itself. Eliminating short-term background ambient transient sounds from the measurement of average long-term background ambient sound proceeds in a manner similar to the measurement of the property-line-noise-source emissions themselves. The two methods for measurement are: to divide the 10-minute measurement into short blocks of data, or inhibit data collection when short-term background transient sounds occur. The same method

must be used for gathering both the property-line-noise-source data and the corresponding long-term background ambient data. The measurement procedures for each method are given in subsections (b)(3), (b)(4) and (b)(5) of this Section:

- 3) Using Small Blocks of Data
  - A) The 10-minute measurement of long-term background ambient must be divided into short measurement blocks. The duration of these blocks must remain constant during the entire measurement, both when measuring the long-term background ambient and when measuring the property-line-noise-source. The duration of this measurement block in seconds,  $T$ , must divide exactly (without remainder) into 600 and must be neither greater than 100 seconds nor less than 10 seconds.
  - B) All data for any measurement block corrupted by one or more short-term ambient transient sounds must be discarded. The number of remaining, non-discarded measurement blocks is designated  $N_{BA}$ , where  $BA$  stands for background ambient.
  - C) The  $L_{eq}$  for each octave-(or 1/3 octave-) band are time-averaged on an energy basis over the  $N_{BA}$  remaining measurement blocks to obtain average long-term background ambient  $L_{eq}$  per band. Equation 1 (see subsection (a) (1) (E) of this Section) is used for this calculation with  $N_{BA}$  replacing  $N_{PLNS}$  as the number of elemental blocks to be summed. The total duration of the measurement in seconds,  $T_{BA}$ , is given by  $N_{BA}$  multiplied by  $T$ .
- 4) Continuous Data Collection
  - A) The measuring instrument must be adjusted according to manufacturer's instructions to continuously measure sound pressure and accumulate (i.e. record)  $L_{eq}$ . A switch must be available to inhibit data collection whenever a short-term background transient sound occurs, (and on some instruments, a button may be available to delete the most recent, previous data).
  - B) The switches or buttons must be used to prevent short-term background ambient sounds from corrupting the data.
  - C) Data collection must proceed for 10 minutes. The result is the 10-minute, long-term background ambient  $L_{eq}$  in each band.
  - D)  $T_{BA}$  is the number of non-inhibited measurement seconds during the 10-minute measurement period.

- 5) The minimum duration, for either method,  $T_{BA}$  must be no less than 150 seconds. If  $T_{BA}$  is less than 150 seconds, then the measurement of the long-term background ambient must continue beyond the original 10 minutes and until  $T_{BA}$  for the total long-term background ambient measurement is greater than or equal to 150 seconds.
- 6) Measurement Alternatives. The long-term background ambient noise should ideally be measured at the potential violation site just before measurement of the property-line-noise-source emissions. However, turning off the property-line-noise-source may not always be possible. The following are a hierarchical order of five procedures for obtaining the long-term background ambient noise. The first four procedures involve direct measurement; the fifth procedure provides for use of tables of values obtained from extensive measurements. These are not equivalent procedures but are ordered from what is considered to be the most accurate to what is considered to be the least accurate procedure.
  - A) Direct Measurement Procedure –1: With the property-line-noise-source (PLNS) turned off, measure the long-term background ambient noise within the hour before or within the hour after measurement of the PLNS emissions at the location where the PLNS measurements are being taken and with the measurement equipment used for the PLNS measurements.
  - B) Direct Measurement Procedure-2: With the PLNS turned off, measure the long-term background ambient during a similar time period in terms of background ambient sound level, within one to 24 hours before, or within one to 24 hours after measurement of the PLNS emissions at the location where the PLNS measurements are being taken and with the measurement equipment used for the PLNS.
  - C) Direct Measurement Procedure- 3: With the PLNS turned off, measure the long-term background ambient during some other acoustically similar period within one to 30 days before, or within one to 30 days after measurement of the PLNS emissions. This alternate long-term background ambient measurement time might be a Saturday night or anytime during a Sunday or holiday. The measurements would be made at the location where the PLNS measurements are being taken and with the measurement equipment (or like equipment) used for the PLNS measurement.
  - D) Direct Measurement Procedure-4: With the PLNS turned off, measure the long-term background ambient noise during some other acoustically similar period within 30 to 90 days before, or



within 30 to 90 days after measurement of the PLNS emissions. These measurements would be made at the location where the PLNS measurements are being taken and with the measurement equipment (or like equipment) used for the property-line-noise-source measurements.

- E) Tables of Long-Term Background Ambient Noise. Where none of the alternatives can be used, use the applicable long-term background ambient data taken from Tables A through D in Appendix A of this Part. These tables are organized by predominant land use and time of day (daytime or nighttime). There are separate tables for octave- and 1/3- octave-bands. The background environments presented in the table are based on extensive measurements conducted in the Chicago area and are divided into the five categories given below in accordance with G.L. Bonvallet, "Levels and Spectra of Traffic, Industrial, and Residential Area Noise," *Journal of the Acoustical Society of America*, 23 (4), pp 435-439, July 1951; and Dwight E. Bishop and Paul D. Schomer, *Handbook of Acoustical Measurements and Noise Control*, Chapter 50, *Community Noise Measurements*, 3<sup>rd</sup> Edition, Cyril M Harris, Editor, McGraw-Hill Book Co., New York (1991).
- i) Category 1: Noisy Commercial and Industrial Areas. Very heavy traffic conditions, such as in busy downtown commercial areas, at intersections of mass transportation and other vehicles, including the Chicago Transit Authority trains, heavy motor trucks and other heavy traffic, and street corners where motor buses and heavy trucks accelerate.
  - ii) Category 2: Moderate Commercial and Industrial Areas, and Noisy Residential Areas. Heavy traffic areas with conditions similar to subsection (b)(6)(E)(i) of this Section but with somewhat less traffic, routes of relatively heavy or fast automobile traffic but where heavy truck traffic is not extremely dense, and motor bus routes.
  - iii) Category 3: Quiet Commercial and Industrial Areas, and Moderate Residential Areas. Light traffic conditions where no mass transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at low speeds. Residential areas and commercial streets and intersections with little traffic comprise this category.

- iv) Category 4: Quiet Residential Areas. These areas are similar to Category 3 in subsection (b)(6)(E)(iii) of this Section but, for this group, the background is either distant traffic or is unidentifiable.
- v) Category 5: Very Quiet, Sparse Suburban or Rural Areas. These areas are similar to Category 4 subsection (b)(6)(E)(iv) of this Section but are usually in unincorporated areas and, for this group, there are few if any near neighbors.

Section 910.107 Measurement Techniques for Highly-Impulsive Sound Under 35 Ill. Adm. Code 901.104.

- a) Measurement of highly-impulsive sound under 35 Ill. Adm. Code 901.104 can be made in two distinct and equally valid ways, namely the general method and the controlled test method.
- b) General Method: The general method is to measure the 1-hour, A-weighted  $L_{eq}$  (not the octave- or 1/3 octave-band levels) using essentially one of the two procedures described in Sections 910.105 and 910.106.
  - 1) The procedure using small blocks of time to collect data is as follows:
    - A) The hour must be divided into small blocks and the A-weighted  $L_{eq}$  must be measured for each of these small blocks of time.  $L_{eq}$  must be measured for the entire hour but data collection must be inhibited whenever a short-term background transient sound occurs.
    - B) The duration of each block must be held constant during the hour. This duration in seconds must divide exactly into 900 and must be neither greater than 100 seconds nor less than 10 seconds.
    - C) The data for any block corrupted by one or more short-term background ambient sounds must be discarded.
  - 2) The continuous data collection procedure is as follows:
    - A)  $L_{eq}$  must be measured for the entire hour.
    - B) Data collection must be inhibited whenever a short-term background transient sound occurs.
  - 3) Correction for the long-term background ambient must be accomplished using all of the other procedures and requirements enumerated in Sections

910.105 and 910.106. These requirements must be complied with to determine an A-weighted, 1-hour, background-ambient-corrected  $L_{eq}$  for the highly impulsive property-line-noise-source under study.

c) Controlled Test Method: For this method, the following procedures must be used:

1) General Measurement Description

- A) The sound exposure per impulse from each separate individual impulsive source is measured.
- B) The total sound exposure per hour from each source is the sound exposure per event multiplied by the number of events per hour.
- C) The grand total sound exposure (SE) per hour is the sum of the sound exposures per hour from each of the separate individual sources.
- D) The reported SEL is obtained from the grand total sound exposure (SE) per hour using the following:

$$SEL = 10 \log (SE) + 94 \quad \text{[Equation 7]}$$

- E) The equivalent level,  $L_{eq}$  corresponding to a SEL measured or predicted for one hour (3600 seconds) is given by:

$$L_{eq} = SEL - 10 \log (3600) \quad \text{[Equation 8]}$$

2) Determination of sound exposure per event must be as follows:

- A) The sound exposure per event from each, separate, individual source must be determined by measuring the total A-weighted sound exposure for about 10 repetitions of this source. This set of about 10 measurements may be performed continuously over a short period of time, or this set of measurements may be performed over a discontinuous set of measurement periods. In either case, the total measurement duration must be less than 100 seconds.
- B) These separate, individual property-line-noise- source controlled measurements must be free of any short-term ambient sounds. If any short-term background transient sounds occur during these measurements, then the measurement must be repeated until measurement data, free of any corrupting short-term background ambient sounds, are obtained.

- C) The total measured A-weighted sound exposure for this group of about 10 repetitions must be corrected for long-term background ambient by subtracting the A-weighted long-term background ambient sound exposure. The sound exposure value subtracted must be the long-term A-weighted background ambient sound exposure per second multiplied by the number of seconds used to measure the several source repetitions.
- D) The reported Source: A-weighted sound exposure per event must be the total corrected sound exposure divided by the number of source repetitions measured.
- E) The background ambient must be measured for a short time, at least 30 seconds as near in time to the source measurements as possible, but within ½ hour. The total A-weighted long-term background ambient sound exposure per second is the total measured long-term background ambient sound exposure divided by the number of seconds of background ambient measurement.
- F) There must be no short-term background ambient sounds present during the measurement of the long-term background ambient. If any short-term background transient sounds occur during these measurements, then the measurements must be repeated until long-term background ambient measurement data free of any corrupting short-term background ambient sound are obtained.

#### 910.APPENDIX A Tables of Long-Term Background Ambient Noise

910.TABLE A. Daytime long-term background ambient  $L_{eq}$  levels in decibels by land use categories and 1/3 octave-band level

Octave-Band Center Frequency (Hz)	Background Category				
	1	2	3	4	5
20	63	56	48	42	36
25	64	57	49	43	37
31	65	58	50	44	38
40	65	58	51	44	38
50	66	59	51	45	39
63	66	59	52	46	40
80	67	60	52	46	40
100	68	60	53	47	41
125	67	59	52	46	40

160	66	59	52	46	40
200	66	58	51	45	39
250	65	58	50	44	38
315	64	57	49	43	37
400	63	55	48	42	36
500	62	54	46	40	34
630	61	53	44	38	32
800	60	51	42	36	30
1000	58	49	40	34	28
1250	56	47	38	32	26
1600	54	45	36	30	24
2000	52	43	33	28	21
2500	50	41	30	25	19
3150	49	39	28	23	17
4000	48	37	25	20	15
5000	46	35	23	18	13
6300	44	33	21	16	10
8000	43	31	19	14	8
10,000	41	29	17	12	6
12,500	39	27	15	10	4

910. APPENDIX A Tables of Long-Term Background Ambient Noise

910.TABLE B. Nighttime long-term background ambient  $L_{eq}$  levels in decibels by land use categories and 1/3 octave-band level

Octave-Band Center Frequency (Hz)	Background Category				
	1	2	3	4	5
20	53	48	43	37	31
25	54	49	44	38	32
31	55	50	45	39	33
40	55	50	46	39	33
50	56	51	46	40	34
63	56	51	47	41	35
80	57	52	47	41	35
100	58	52	48	42	36
125	57	51	47	41	35

160	56	51	47	41	35
200	56	50	46	40	34
250	55	50	45	39	33
315	54	49	44	38	32
400	53	47	43	37	31
500	52	46	41	35	29
630	51	45	39	33	27
800	50	43	37	31	25
1000	48	41	35	29	23
1250	46	39	33	27	21
1600	44	37	31	25	19
2000	42	35	28	23	16
2500	40	33	25	20	14
3150	39	31	23	18	12
4000	38	29	20	15	10
5000	36	27	18	13	8
6300	34	25	16	11	5
8000	33	23	14	9	3
10,000	31	21	12	7	1
12,500	29	19	10	2	

## 910. APPENDIX A Tables of Long-Term Background Ambient Noise

910.TABLE C. Daytime long-term background ambient  $L_{eq}$  levels in decibels by land use categories and octave-band level

Octave-Band Center Frequency (Hz)	Background Category				
	1	2	3	4	5
31	70	63	55	49	43
63	71	64	57	51	45
125	72	64	57	51	45
250	70	63	55	49	43
500	67	59	51	45	39
1000	63	54	45	39	33
2000	57	48	38	33	26
4000	53	42	30	25	20
8000	48	36	24	19	13

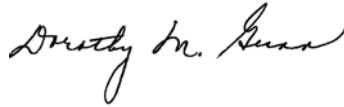
## 910. APPENDIX A Tables of Long-term Background Ambient Noise

910.TABLE D. Nighttime long-term background ambient  $L_{eq}$  levels in decibels by land use categories and octave-band level

Octave-Band Center Frequency (Hz)	Background Category				
	1	2	3	4	5
31	60	55	50	44	38
63	61	56	52	46	40
125	62	56	52	46	40
250	60	55	50	44	38
500	57	51	46	40	34
1000	53	46	40	34	28
2000	47	40	33	28	21
4000	43	34	25	20	15
8000	38	28	19	14	8

IT IS SO ORDERED.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on March 2, 2006, by a vote of 4-0.



Dorothy M. Gunn, Clerk  
Illinois Pollution Control Board