

INDUSTRY, LABOR AND HUMAN RELATIONS 3

(16) **SERVICEABILITY.** Serviceability means that a ride has been erected, maintained and repaired in accordance with recognized practice, and critical parts are not weakened by abnormal wear or cracks, improper repair, or other conditions.

History: Cr. Register, July, 1967, No. 139, eff. 8-1-67; r. and recr. Register, June, 1978, No. 270, eff. 7-1-78.

Ind 47.03 Registration. (1) **SCOPE.** All amusement rides shall be registered with the department each calendar year. The fee, as set forth in Wis. Adm. Code chapter Ind 69, shall be paid and the rides shall be registered prior to being opened to the public.

(2) **INFORMATION REQUIRED.** The following information for registration shall be provided on form SBD-5292, which will be provided by the department:

(a) Name and address of owner, operator or lessee if different from owner.

(b) Descriptive name, model and serial number of the ride, and name and address of manufacturer.

(c) Description of modifications and name and address of modifier.

(d) Route, i.e., places and dates on which the ride will be operated in the state. If the itinerary is incomplete or changes occur, the department shall be notified prior to operation on the adjusted route.

(e) Proof of worker's compensation coverage and ability to pay liability damages arising out of the handling, maintenance or use of amusement devices, such as evidence of insurance coverage.

(3) **ADDITIONAL INFORMATION.** Additional information required by the department shall be provided as requested.

Note: The department will request information required for proper classification of rides unfamiliar to the department or rides with unfamiliar modifications, and other information related to safe operation, such as, but not limited to, maintenance and inspection records and certification of pressure vessels.

(4) **MODIFIED AMUSEMENT RIDES.** Amusement rides modified since the last registration shall not be operated until the department has been provided with information to determine the proper maintenance and test class and the owner/operator has obtained a new registration certificate.

(5) **AMUSEMENT RIDE REGISTRATION REFUSAL.** Amusement rides with outstanding inspection fees or unabated orders shall not be registered by the department.

(6) **POSTING OF CERTIFICATE.** The registration certificate shall be posted on the ride so that it is visible during ride operation and transportation.

History: Emerg. cr. eff. 3-30-78; cr. Register, June, 1978, No. 270, eff. 7-1-78.

Ind 47.04 Classification of rides for type of inspections and tests required. (1) **SCOPE.** Amusement rides will be categorized in one of 4 classes in accordance with known characteristics of the ride and its modification(s). The department may request additional information for modified rides and for rides unfamiliar to the department. Rides will be

assigned to class 4 when requested information is not supplied as requested.

(a) The department will notify the owner/operator of the class to which the rides have been assigned and the inspections and tests that will be required.

(b) The department will reclassify rides if the rides fail to continue to meet the criteria for which they were classified.

1. Only rides that are initially, or upon reclassification, assigned to class 4 shall be required to comply with the requirements of section Ind 47.10.

(2) **RIDE CLASSIFICATION CRITERIA.** Rides shall be classified in accordance with the following criteria:

(a) *Unmodified rides.* 1. Class 1. Class 1 consists of properly designed, constructed and maintained rides that move passengers in a mild manner such that a failure would probably not cause serious injury.

Note: It is intended that class 1 include such rides as merry-go-rounds, ride-throughs and non-lifting kiddie rides.

2. Class 2. Class 2 consists of properly maintained rides which do not qualify for class 1, but the same manufacturer's model has been proven to be free from defects by 10 years of field service and the ride is recognized to be safe by insurance carriers, owner/operators, and the department.

3. Class 3. Class 3 consists of rides which do not qualify for class 1 or class 2 but are designed and constructed in accordance with an engineering analysis acceptable to the department and are tested to verify the analysis. Documentation of such analysis and testing shall be filed with and accepted by the department.

4. Class 4. Class 4 consists of those rides which do not meet the requirements for the other 3 classes.

(b) *Modified rides.* Modified rides will be classified using the same procedure as unmodified rides.

1. In order to be included in class 3, the design, analysis and tests of modified rides must consider the effect of the modification on the entire ride during assembly, operation, disassembly and transportation.

History: Cr. Register, June, 1978, No. 270, eff. 7-1-78.

Ind 47.05 Design and construction. (1) **GENERAL.** (a) Amusement rides and devices subject to the provisions of this code shall be so designed and constructed that the maximum allowable loads will not stress any part beyond allowable limits.

(b) Amusements shall be anchored, guyed, stayed or otherwise supported to provide proper stability and to restrict any adverse change in stability.

History: Cr. Register, July, 1967, No. 139, eff. 8-1-67.

Ind 47.06 Emergency brakes and anti-rollback devices. If cars or other components of an amusement device may collide upon failure of normal controls, emergency brakes sufficient to prevent such collisions

shall be provided. On rides which make use of inclined tracks, automatic anti-rollback devices shall be installed to prevent backward movement of the passenger-carrying units in case of failure of the propelling mechanism.

History: Cr. Register, July, 1967, No. 139, eff. 8-1-67.

Ind 47.07 Speed-limiting devices required. An amusement device capable of exceeding its maximum safe operating speed shall be provided with a maximum speed-limiting device.

History: Cr. Register, July, 1967, No. 139, eff. 8-1-67.

Ind 47.08 Passenger-carrying devices. (1) The interior and exterior parts of all passenger-carrying amusement devices with which a passenger may come in contact shall be smooth and rounded, free from sharp, rough or splintered edges and corners, with no protruding studs, bolts, screws, or other projections. Interior parts upon which or against which a passenger may be forcibly thrown by the action of the ride shall be adequately padded.

(2) Devices that are self-powered and that are operated by passengers shall have the driving mechanism so guarded and the guards so locked in place as to prevent passengers from gaining access to the mechanism.

(3) Such belts, bars, foot rests and other equipment as may be necessary for safe entrance and exit and for support while the device is in operation shall be provided. Such equipment and the fastenings shall be of sufficient strength to retain the passengers. The fastenings shall be of a type which cannot be inadvertently released.

History: Cr. Register, July, 1967, No. 139, eff. 8-1-67.

Ind 47.09 Periodic inspections and operational tests. The owner/operator shall arrange for all rides and attractions to be subjected to periodic inspections and operational tests. Such inspections and tests shall be documented by written records and the records shall be kept as required in section Ind 47.13 (2).

(1) **INSPECTION AT ASSEMBLY.** A visual inspection for defect shall be made at assembly. Inspection of all fastening devices shall be made to assure that fasteners recommended by the manufacturer have been properly installed.

(2) **DAILY INSPECTION AND OPERATIONAL TESTS.** Amusement rides and attractions shall be inspected and their operation tested each day before used by passengers or frequenters. The inspection and operational test shall include the operation of all control devices, speed-limiting devices, brakes and other equipment provided for safety.

History: Cr. Register, June, 1978, No. 270, eff. 7-1-78.

Ind 47.10 Testing of rides assigned to class 4. Rides assigned to class 4 shall be load tested prior to initial operation. Immediately following the load test, all critical parts shall be tested for serviceability. The documentation of these tests shall be accepted by the department before the ride is opened to the public in Wisconsin. The test and the documentation shall be performed every 6 years. The test shall be performed in accordance with (3) of this section.

(1) **BALANCED LOAD TEST.** The capability of the ride to operate through a normal cycle with all passenger spaces loaded to 1-3/4 times the rated passenger weight shall be demonstrated through test. The test weights shall have approximately the same center of gravity as the expected passenger. The capability of rides which will not operate with 1-3/4 times rated load shall be demonstrated through verified engineering analysis as specified in Ind 47.04 (2) (a) 3.

Note #1: A method of estimating passenger load is presented in Appendix A.

Note #2: Individuals conducting balanced load tests should exercise extreme caution and care in planning and conducting such tests in order to prevent accidental injury of viewers and bystanders.

(2) **UNBALANCED LOAD TEST.** An "unbalanced load" or a "static" test in accordance with either (a) or (b) below shall be conducted on all rides. If tipping is imminent during the test, the ride has failed the test and may not be operated unless a positive means to prevent unbalanced loading, acceptable to the department, is provided. If the ride is not capable of operation with the specified unbalanced load, the stability of the ride shall be proved by operating the ride under its maximum unbalanced load capacity.

(a) Unbalanced load tests for stability shall be accomplished by loading the portion of the passenger spaces which cause maximum unbalance and operating the ride at normal speeds. The weight in each of these selected passenger spaces shall be at least equal to the weight of passengers that could reasonably be carried in the space.

(b) Static tests for stability shall be accomplished by applying forces equal in direction and magnitude to the calculated greatest unbalance force that will occur during testing by unbalanced loads.

Notes: The ride is not in motion during static stability tests. Forces are exerted and measured via attachments to the earth.

(3) **DOCUMENTATION.** Class 4 rides shall not be opened to the public until documentation of successful completion of tests, in accordance with (1) and (2) above and in accordance with Ind 47.11 (2) (b), have been accepted by the department.

History: Cr. Register, July, 1967, No. 139, eff. 8-1-67; r. and recr. Register, June, 1978, No. 270, eff. 7-1-78.

Ind 47.11 Test for serviceability. (1) **SCOPE AND NATURE OF TESTS.** A nondestructive test (such as, but not limited to, magniflux, x-ray, dye or sonic) of critical parts of amusement rides shall be performed in accordance with the test period and implementation program presented in this section.

Note #1: The purpose of these tests is to prevent catastrophic failure by using sensitive nondestructive tests to detect deterioration of critical parts of amusement rides.

Note #2: Manufacturers and other recognized authorities are encouraged to submit a list of parts that require testing and appropriate means and time between tests. When available, this list will be made available to the ride owner/operator.

(2) **TEST PERIOD.** (a) *Classes 2 and 3.* The critical parts of all class 2 and class 3 amusement rides shall be tested for serviceability every 3 years or 3,000 hours of operation, whichever comes first, or at testing intervals recommended by the manufacturer.