

**BEFORE THE ENGINEERING and LAND SURVEYING EXAMINING BOARD  
OF THE STATE OF IOWA**

IN THE MATTER OF:	)	
	)	CASE NO. 95 - 14
LOWELL E. WENZEL, PE 10671	)	
10100 Morgan Avenue South	)	STIPULATION
Bloomington, MN 55431	)	and
	)	ORDER
Respondent	)	

Pursuant to Iowa Code §17A.10 (1995) and I.A.C. Rule 193C--4.10(542B), this Stipulation is entered into between Lowell G. Wenzel (Wenzel) and the Iowa Engineering and Land Surveying Examining Board (Board). The parties agree that:

- a. The Board has jurisdiction in this matter pursuant to Iowa Code Chapter 17A, 272C, and 542B(1995) as amended by House File 256, Seventy-sixth General Assembly.
- b. On June 11, 1985, Lowell E. Wenzel, the Respondent, was issued Iowa professional engineering registration number 10671.
- c. Registration number 10671 is currently in good standing until December 31, 1996.

**THE CIRCUMSTANCES**

- 1. On March 8, 1995, Lowell E. Wenzel, PE 10671, agreed to a Stipulation and Order with the Complaint Committee of the Minnesota Board of Architecture, Engineering, Land Surveying, Landscape Architecture and Interior Design. (Minnesota Board).

2. Wenzel is licensed to practice engineering in the State of Minnesota. At all times relevant to this matter, Wenzel was co-owner of an engineering firm known as Rehder-Wenzel, Inc., Bloomington, Minnesota.

3. In 1989, Rehder-Wenzel, Inc. was retained by C.S. McCrossan Construction, Inc., to design the temporary support structures ("falsework") needed for the construction of the new Lake Street bridge over the Mississippi River. The temporary falsework would include four 200 foot trusses needed to span a navigation channel in the river. The truss system was a significant structure in itself. Up to two dozen workers and several state inspectors at a time would depend on the safety of the temporary bridge.

4. Wenzel and an employee, Mark Shefchik, decided on a general design for the falsework. Shefchik is also a registered engineer in Minnesota. The plans containing the design specifications and mathematical calculations were prepared by Shefchik and signed by Wenzel. Wenzel and Shefchik have testified that Wenzel checked certain of Shefchik's calculations and reviewed all of the work done by Shefchik. The Minnesota Board found no documentary evidence that Wenzel checked a single calculation or conducted a review of the plans.

5. The design called for four parallel trusses to span the navigation channel in the river. Each truss was seven feet deep and 200 feet long. The plans specified that each of the two exterior trusses would be supported at each end by a beam four feet long that was 27 inches deep and had no special strengthening ("stiffening"). One of these four short beams was denominated "WG." WG was supposed to carry a load of approximately 416,000 pounds.

6. If Wenzel and Shefchik had performed mathematical checks required by the American Institute of Steel Construction (AISC) Manual, the guidelines they had expressly stated they would follow, an error in the strength of WG would have been apparent.

7. Shefchik did perform two required mathematical checks: he checked to make sure that WG would not deflect excessively or yield in bending under the weight of the truss and the wet concrete. As a general proposition, short, heavily loaded beams tend to fail by web crippling or yielding, or in shear, rather than yield in bending in the middle. Wenzel and Shefchik did not perform the AISC-required mathematical check for either web crippling or shear. WG did not meet AISC specifications for web crippling or shear.

8. WG and the other truss support beams were connected to longer beams which in turn were connected to towers. The towers rested on piles driven into the river bed.

9. During construction, M<sup>C</sup>Crossan Construction used a slightly larger beam (30 X 108) for WG than the size the plans specified (27 X 84). Although this increased the strength of WG, the Minnesota Board contended that the substituted beam was still inadequate to carry the load.

10. On April 24, 1990, as construction was in progress on the permanent bridge, there was a noise in the falsework. A state inspector ordered workers to stop work, and the workers got off the bridge. Several M<sup>C</sup>Crossan supervisors, a state inspector, and Shefchik (who had been called) went onto the falsework near the trusses to discover the cause of the noise. They saw that one end of one of the trusses had moved and that beam WG had crumpled. About one and one-half hours after the noise was heard, the falsework suddenly collapsed, resulting in

the loss of one life: Robert Moser, M M<sup>C</sup>Crossan welding foreman. A portion of the falsework, including the trusses, fell into the Mississippi River.

11. The Minnesota Board determined that the conduct specified above violated Minnesota Statute 326 and was sufficient ground for disciplinary action.

12. On March 17, 1995, the Minnesota Board approved and adopted the terms of the stipulation, and suspended Wenzel's license for nine months beginning April 1, 1995.

The provisions of the stipulation also required Wenzel to obtain continuing education, read ethics material, have a peer review of his office procedures, and pay a civil penalty.

13. Iowa Code 542B.21, as amended by House File 256, Seventy-sixth General Assembly, gives the Board authority to suspend or revoke any registrant who has been disciplined by a licensing authority in another state. A certified copy of the record or order of suspension, revocation, or other disciplinary action is prima facie evidence of such fact. The Board has on file a certified copy of the Stipulation and Order entered into by Wenzel and the Minnesota Board.

#### **STIPULATED ORDER**

IT IS THEREFORE ORDERED, ADJUDGED and DECREED by the Iowa Engineering and Land Surveying Examining Board as follows:

1. Wenzel has a right to a hearing on this matter, but waives a right to a hearing and all attendant rights by freely entering into this Stipulation.

2. In accordance with the provision of 542B.21, new subsection 5A, Wenzel's Iowa license PE 10671 is hereby suspended for a term of nine months. After the nine-month period of suspension, Wenzel may apply for reinstatement when he can furnish documentation that his Minnesota license is in good standing. The nine-month suspension shall commence when this Stipulation is signed by Wenzel and approved by the Board.
3. This Stipulation shall be made part of the permanent record of Wenzel and shall be considered by the Board in determining the nature and severity of any disciplinary action to be imposed for any further violations. In addition, the National Council for Examiners for Engineering and Surveying shall be advised of the disposition of this matter.
4. The Stipulation is a public record available for inspection and copying in accordance with the requirements of chapter 22 of the Iowa Code.
5. Failure to comply with the provisions of this Stipulation shall be considered prima facie evidence of a violation of Iowa Code § 542B.21(3), 272C.3(2)"a," and I.A.C. 193C--4.2(542B). However, no action may be taken against any licensee for violations of these provisions without a hearing as provided for in Iowa Code §542B.22.
6. This Stipulation is subject to the approval of the Board. If the Board fails to approve this agreement, it shall be of no force or effect on either party, and it shall not be admissible for any purpose in further proceedings in this matter. If approved by the Board, this agreement shall be deemed and agreed upon disposition of a contested case proceeding and will dispose of all matters contained in Case No. 95 - 14. In addition, Wenzel consents to Counsel for the Board presenting this Stipulation to the Board and to Counsel's making ex parte communications to the Board while presenting it.

7. This Stipulation is voluntarily submitted by Wenzel to the Board for consideration.

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Lowell E. Wenzel  
Respondent

OCT 14, 95  
Date

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Dwayne Garber, Chair  
Iowa Engineering and Land  
Surveying Examining Board

OCT. 19, 1995  
Date