The Boeing Company
P.O. Box 3707
Seattle, WA 98124-2207

July 19, 2005
9704-PFS-107

DOCUMENT CONTROL DESK
UNITED STATES NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

BOEING

Reference: a) Boeing Letter G-1151-RSO-92-365 dated August 31, 1992; R.S. Orr to the NRC Operations Center

b) NRC Letter Docket No. 99901227 dated August 12, 1992; L. J. Norrholm to R. S. Orr; Subject: Response to 10 CFR 21 Inquiry

Dear Sir or Madam:

In accordance with the Reference correspondence and 10 CFR 21, Boeing is sending the NRC the attached error notices received from our former software suppliers. Because of unknown current addresses, the following former customers were not notified:

Reactor Controls, Inc
Echo Energy Consultants
Nuclear Applications and Systems Analysis Company (Japan)
Nuclear Power Services
GPU Nuclear Corporation
Tenera, Inc.
Stone & Webster Engineering
Raytheor Engineers & Constructors
Gilbert Associates, Inc.

Error notices have been sent to our other former customers.

Very truly yours,

Pat Soroe

Pat Soroe
Nuclear Administrator
(425) 865-5386
patricia.f.soroe@boeing.com

Enclosures: GT STRUDL Program Report Forms 2005.02 – 2005.04

IE20

GTSTRUDL Program Report Form

GPRF No.: 2005.02

DATE: 6/15/05

FROM: Computer-Aided Structural Engineering Center
Georgia Institute of Technology
Atlanta, Georgia 30332-0355

SEVERITY LEVEL:

X URGENT	Problem results in incorrect answers which may not be apparent or job aborts and cannot be recovered within the session or job.
_ SERIOUS	Problem results in incorrect answers which are obvious or problem prevents completion of a particular user's task.
_ MINOR	Problem can be worked around or problem poses high frustration factor.
_ INFORMATIVE	Documentation error, program usage tip, user inconveniences.

Date Problem Confirmed June 9, 2005

Date Notification Sent 6/15/05

Computers All

Operating System All

Version All

Target Release for Correction Version 29.0

Michael H. Swanger — Sr. RE
Signature — Title
R & D Division

Michael H. Swanger — 6/10/05
Typed or Printed Name — Date of Signature

David C. Key — Configuration Control Manager
Signature — Title
Professional Services Division

David C. Key — 6/15/05
Typed or Printed Name — Date of Signature

GTSTRUDL Program Report Form
(Continued)

GPRF No.: 2005.02

DATE: 6/15/05

DESCRIPTION:

GTSTRUDL static and dynamic analyses will abort if member releases are specified for rigid bodies (TYPE RIGID PLANE/PLATE/PIN/SOLID). Member releases may be specified only for plane and space frame members. Rigid members that have member releases, or other special member end conditions such as member eccentricities and end joint sizes, are more appropriately modeled by plane/space frame members with large stiffness properties to model the rigid behavior.

GTSTRUDL Reference Manual Sections

Joint Constraints – Rigid Bodies and Joint Ties	Section 2.6.5, Volume 3

GTSTRUDL Program Report Form

GPRF No.: 2005.03

DATE: 6/20/05

FROM: Computer-Aided Structural Engineering Center
Georgia Institute of Technology
Atlanta, Georgia 30332-0355

SEVERITY LEVEL:

__ URGENT — Problem results in incorrect answers which may not be apparent or job aborts and cannot be recovered within the session or job.

__ SERIOUS — Problem results in incorrect answers which are obvious or problem prevents completion of a particular user's task.

_X_ MINOR — Problem can be worked around or problem poses high frustration factor.

__ INFORMATIVE — Documentation error, program usage tip, user inconveniences.

Date Problem Confirmed June 16, 2005

Date Notification Sent 6/20/05

Computers All

Operating System All

Version All

Target Release for Correction Version 29.0

Michael H. Swanger
Signature
R & D Division

Sr. RE
Title

Michael H. Swanger
Typed or Printed Name

6/16/05
Date of Signature

David C Ivey
Signature
Professional Services Division

Configuration Control Manager
Title

David C. Ivey
Typed or Printed Name

6/20/05
Date of Signature

GTSTRUDL Program Report Form
(Continued)

GPRF No.: 2005.03

DATE: 6/20/05

DESCRIPTION:

The execution of the FORM MISSING MASS command assumes that the DAMPING RATIO/PERCENT is 0.0 if neither of the words RATIO or PERCENT is given in the command following the DAMPING option. The following message will be reported if neither of the words RATIO or PERCENT is given in the command and the assumed damping ratio of 0.0 is not within the range of the damping values for the response spectrum curve(s) of the specified response spectrum loading:

```
{ 6151} > FORM MISSING MASS LOAD 'MM103' -
{ 6152} >_FROM RESPONSE SPECTRA LOAD 103 FREQ 33.00 DAMPING 0.05

**** ERROR_STDZPA -- DAMPING RATIO FOR MISSING MASS LOAD COMPUTATION
                     LIES OUTSIDE THE RANGE OF SPECTRAL CURVES FOR
                     RESPONSE SPECTRUM LOAD 103      .  SCAN MODE ENTERED.

CI-w-cmdnpro, ERROR: The following symbols were not processed.
0.05
```

If the assumed damping ratio of 0.0 is within the range for the response spectrum curve(s) of the specified response spectrum loading, then the following error message is reported and the missing mass loading is computed for a damping ratio of 0.0:

```
{ 6151} > FORM MISSING MASS LOAD 'MM103' -
{ 6152} >_FROM RESPONSE SPECTRA LOAD 103 FREQ 33.00 DAMPING 0.05

CI-w-cmdnpro, ERROR: The following symbols were not processed.
0.05
```

However, this situation can occur only if one of the response spectrum curve(s) of the specified response spectrum loading has a damping ratio/percent of 0.0.

In order to correct this error condition, add the appropriate word, either RATIO or PERCENT, to the FORM MISSING MASS command following the word DAMPING:

```
FORM MISSING MASS LOAD 'MM103' -
FROM RESPONSE SPECTRA LOAD 103 FREQ 33.00 DAMPING RATIO 0.05
```

GTSTRUDL Reference Manual Sections

The FORM MISSING MASS Command Section 2.4.9.1, Volume 3

GTSTRUDL Program Report Form

GPRF No.: 2005.4

DATE: 7/1/05

FROM: Computer-Aided Structural Engineering Center
Georgia Institute of Technology
Atlanta, Georgia 30332-0355

SEVERITY LEVEL:

X URGENT	Problem results in incorrect answers which may not be apparent or job aborts and cannot be recovered within the session or job.
_ SERIOUS	Problem results in incorrect answers which are obvious or problem prevents completion of a particular user's task.
_ MINOR	Problem can be worked around or problem poses high frustration factor.
_ INFORMATIVE	Documentation error, program usage tip, user inconveniences.

Date Problem Confirmed June 30, 2005

Date Notification Sent 7/1/05

Computers ALL

Operating System ALL

Version Version 87.01 through and including version 28

Hamid Zand
Signature
R & D Division

Senior Software Engineer
Title

Hamid Zand
Typed or Printed Name

June 30, 2005
Date of Signature

David C. Key
Signature
Professional Services Division

Configuration Control Manager
Title

David C. Key
Typed or Printed Name

7/1/05
Date of Signature

GTSTRUDL Program Report Form
(Continued)

GPRF No.: 2005.04

DATE: 7/1/05

DESCRIPTION:

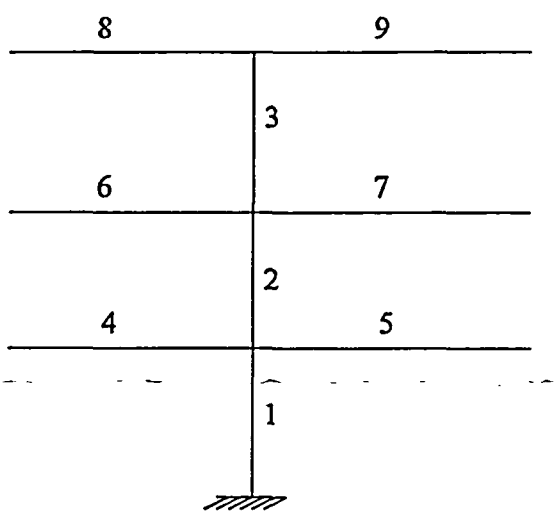
Applicable GTSTRUDL Command:
Steel design CHECK or SELECT MEMBERS command

Applicable GTSTRUDL Steel Design Function:
Automatic K-factor computation

GTSTRUDL Documentation Reference:
Sections 2.2 and 2.3 of Volume 2A

Explanation:
Automatic K-factor computations will be incorrect if the user specifies parameter FRLY or FRLZ for the beams or columns connected to the member for which the K-factor is being computed.

Example:




```
COLUMN LINE 'COL1' MEMBERS 1 TO 3

PARAMETERS
  FRLY      0.5     MEMBERS 4 TO 9
  COMPK     KZ      MEMBERS 1 TO 3

OR if problem is a 3D model

  COMPK     YES     MEMBERS 1 TO 3
```

CHECK MEMBERS 1 TO 3

OR

SELECT MEMBERS 1 TO 3

Workaround:

Specify the parameters LY and LZ for the unbraced length. Do not use FRLY and FRLZ when requesting the automatic K-factor computation.

Important Note:

The problem with parameters FRLY and FRLZ only affects the automatic K-factor computation. Parameters FRLY and FRLZ are correctly implemented for all other steel design code check or select commands.