MAXIMUM CYCLES OF CONCENTRATION WORKSHEET

CERTIFICATE OF COMPLIANCE	NRCC-MCH-06-E
Maximum Cycles of Concentration Worksheet	(Page 1 of 2)
Project Name:	Date Prepared:

A. Langelier Saturation Index (LSI) Calculation		
01	Maximum Skin Temperature (°F)	
02	Conductivity	
03	M-Alkalinity	
04	Calcium Hardness	
05	Magnesium Hardness	
06	Enter Target Tower Cycles	
07	Make-up pH @Target Cycles	
08	Calculated pH @Target Cycles	
09	Tower LSI Based on Calculated pH	
10	Compliance Statement:	Pass or Fail

MAXIMUM CYCLES OF CONCENTRATION WORKSHEET

Project Name:	Date Prepared:

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT	
1. I certify that this Certificate of Compliance documentation is accurate and complete.	
Documentation Author Name:	Documentation Author Signature:
Company:	Signature Date:
Address:	CEA/ HERS Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Responsible Designer Signature:
Company :	Date Signed:
Address:	License:
City/State/Zip:	Phone:

NRCC-MCH-06-E User Instructions

Section A. Langelier Saturation Index (LSI) Calculation

1. Enter the Maximum Skin Temperature in degrees F; or use the default of 110°F.
2. Enter the Conductivity from the annual report provided by the local water utility.
3. Enter the M-Alkalinity from the annual report provided by the local water utility.
4. Enter the Calcium Hardness from the annual report provided by the local water utility.
5. Enter the Magnesium Hardness from the annual report provided by the local water utility.
6. Enter the Target Tower Cycles
7. Make-Up pH is based on the following:
   If line 1=0, then Make-Up pH=0
   Else if line 1 > 0, then Make-Up pH= {log[(line6*line3)*0.9*1.219]+2.19}/0.55
8. Calculated pH is based on the following:
   If line 1=0, then Calculated pH=0
   Else if line 1 > 0, then Calculated pH={[log(line6*line2*0.8)*.1111]+12.3-{log(line6^2*line4*line3)+(0.00915*line1)}
9. LSI = line 7 – line 8.
10. This field displays “Pass” or “Fail” based on the value in line 9. Display “Pass” if line 9 ≤ 2.5, otherwise the field should display “Failed”.