Revised MN GLM Data Request for HO and PPA (3/9/2017 Version)

If you are using GLM Models please explain (for each model if using multiple models):

1. A description of the dataset used including a sample record with field descriptions and the experience period (years) covered.
2. Discuss the source of non-insurance data. Discuss how non-insurance data was integrated into the insurance data for analysis. Discuss any assumptions needed during this process. How can customers obtain and correct any errors in their records?
3. Specify the target variable, the link function, the error distribution, the offset variables and GLM weights and or volume offsets for the model (or models if there are more than one, for example in a frequency-severity model).
4. Explain any adjustments made to the data prior to running the model.
5. Specify the explanatory variables, and indicate which are discrete or continuous
6. For each explanatory variable, disclose any extrapolations or interpolation assumptions where low volume of data exists in the model. What is the basis for the assumption?
7. For the continuous variables discuss any transformations along with why they were used, the parameter value along with the WALD confidence intervals, WALD chi-square tests and associated p-values as well as selected values.
8. For each discrete variable, provide the parameter value for each level including the WALD confidence intervals, WALD chi square tests and p values and for the overall variables type 3 chi square tests, p values and F tests as well as selected values
9. Discuss how any problems of discrete variables which appeared significant due to scaling were addressed.
10. Discuss how you tested for goodness of fit. For example, what model diagnostics for standard error and deviance tests were used? Why were these considered appropriate?
11. Discuss tests for and adjustments made for correlation.
12. Discuss how AIC (Akaiki Information Criteria) was used.
13. Discuss how you tested the model for stability. For example, how were hold out data set(s) utilized? How was the risk of overfitting data considered and mitigated?
14. Please provide partial residual plots for each variable.
15. Provide lift charts with discussion.
16. Describe any residual analysis conducted after finalizing the GLM. What rating variables were included? Provide demonstration of support for rate impact.