CritView – Version 1.04 – New Features and Updates

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NCSP Technical Program Review

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Goals of the 2018 CritView Revision:

- Decrease file read times in order to support larger database

- Improve user interface – make it more intuitive

- Correct minor bugs in code and database

Background
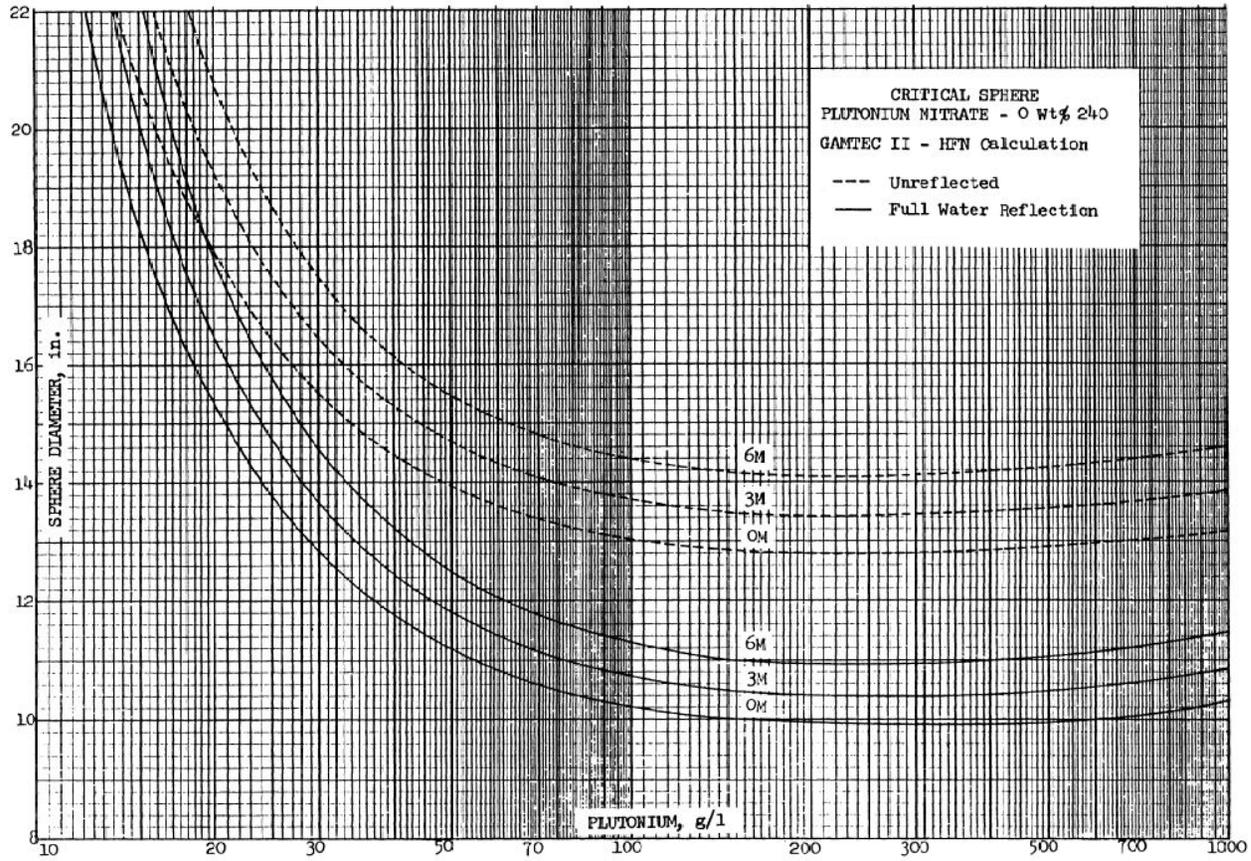
- CritView Proposed by Hans Toffer at Hanford

- Funded by NCSP starting ~2004

- Developed by David Erickson and Scott Finfrock

- HTML version of ARH-600 released ~2005

- Initial public release of CritView in 2009

CritView Overview

- Designed to be an "Electronic Handbook"

- Provide a versatile interface for ARH-600 and other criticality safety handbook data

- Make multiple handbooks and data sets available in one place

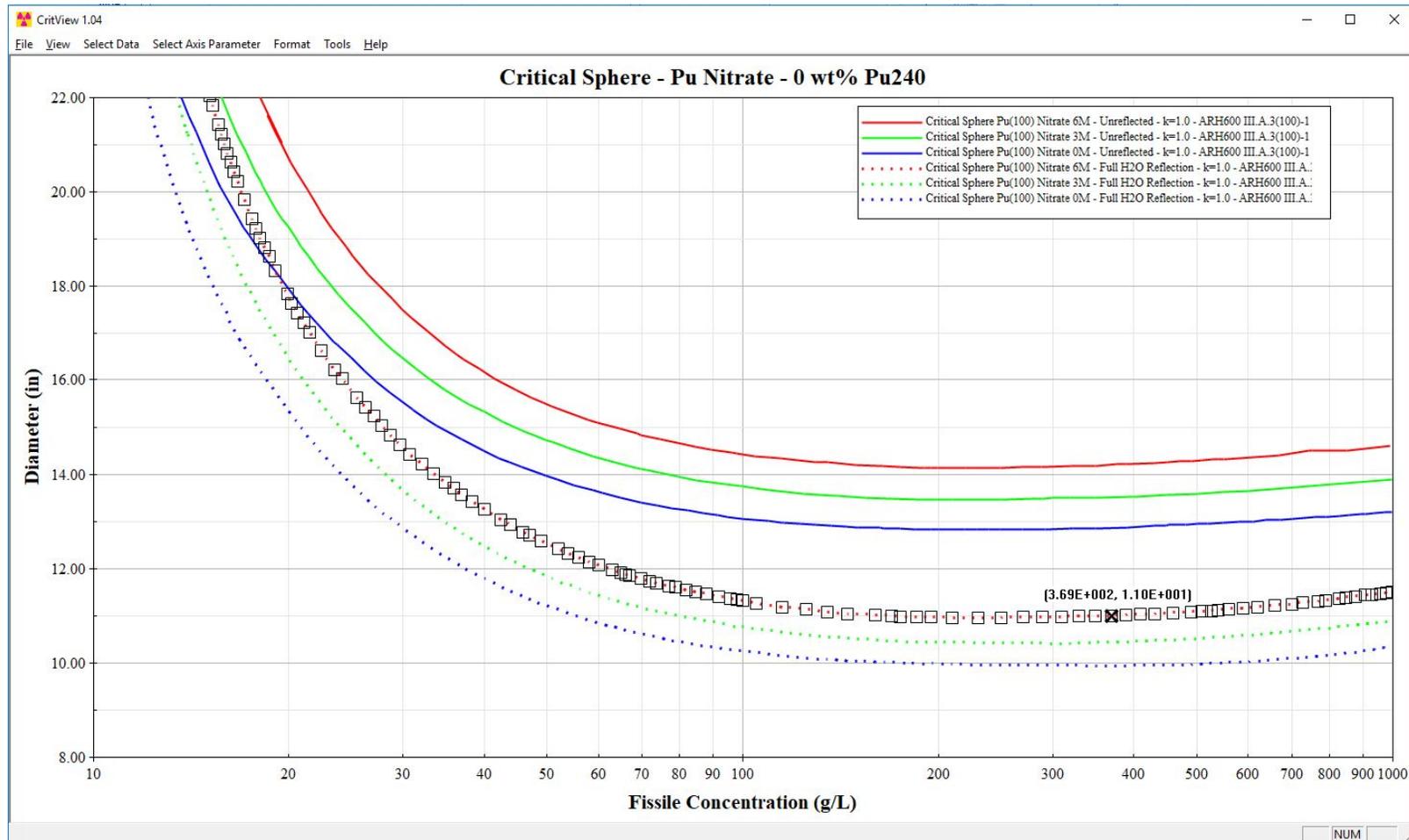- Provide updated and well documented data (i.e., reproduce ARH-600 with MCNP)

Typical Page from ARH-600

CRITICAL SPHERE
PLUTONIUM NITRATE - 0 Wt% 240

GAMTEC II - HFN Calculation

--- Unreflected
—— Full Water Reflection

III.A.3.100-1

ARH-600

CritView v1.04 Representation of ARH-600 Page

CritView v1.04 Revision

- **Software Overview**
  - Written in C++ with MFC
  - Approximately 20,000 lines
  - Developed with Microsoft Visual Studio 2013
  - Approximately 80% rewritten for this revision

New Features in CritView v1.04

- **Major additions**

  – New user interface (old interface still available as menu item)

  – Binary database file for faster reads (still compatible with text database file)

  – Print plots directly from CritView

  – Updates to database (new database file version 1.08)

- **Minor additions**

  – Hide curves by right clicking

  – Filter on multiple isotopes simultaneously

  – Use molarity as a filter parameter

  – Ability to rearrange line order in legend

  – Display curves with non-standard parameters

New User Interface

How to Get Your Very Own Copy

- NCSP Web Page http:\\ncsp.llnl.gov

  Analytic Methods tab

  CritView (on left sidebar)

  Click on Download CritView

- For more information, send email to:
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