



Potential Communication Improvements of Conversion

... in Domestic Emergency Response and Guidance

Sara DeCair, US EPA

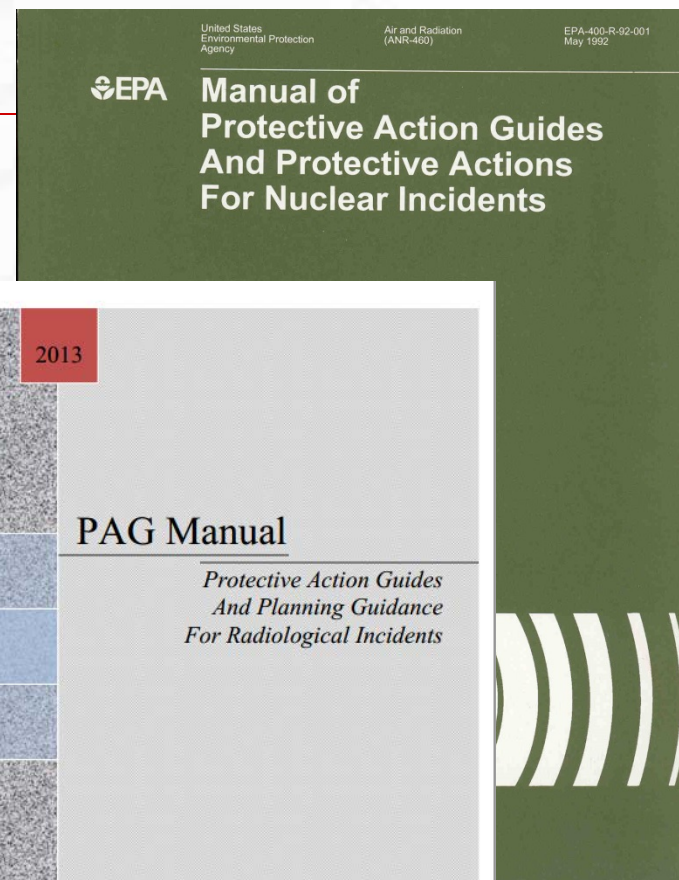
September 2016

Items to Cover

- How far we've come since 1992 (& 1980, 1975, 1960s...)
- How PAGs are implemented
 - ✓ Field measurements
 - Worksheets, RadResponder
 - ✓ State dose assessors
 - Spreadsheets, RASCAL
 - ✓ & into FRMAC map products
- Worker safety

PAG Manual

- 1992 PAG Manual is still good, still in use
- Printed tables of DRLs, DCFs
- 2013 revision points users to FRMAC Assessment Manual



Field teams -> dose assessment

- Field measurement protocol for incident at a nuclear power plant in Michigan:
 - ✓ Exposure rate at centerline (in $\mu\text{R/hr}$ or mR/hr)
 - ✓ Field screen in air sample filter and cartridge (in cpm)
- Radio the data points in, health physicists enter it into worksheet/spreadsheet – easy to translate from US meters to SI units at this point, in my opinion

FRMAC Assessment

- PAG Manual users are referred to FRMAC Assessment Manuals for calculations using up-to-date dosimetry.
 - ✓ Lookup tables of DCFs and DRLs not in PAG Manual
 - ✓ Appendix C contains all factors (in US units)
 - ✓ Updated more frequently than PAG Manual
- Training on FRMAC methods ongoing
- TurboFRMAC easily toggles between US & SI

Worker protection – a special case

- To implement dose guides (5, 10, 25 rem)
 - ✓ Most response orgs use exposure rate guides
 - ✓ Turn-back or 'no-go' rates, and total exposure
- *Snap judgements are key to staying safe*
 - ✓ This seems to me a special case where an intensive training process would be needed for a very large population of emergency responders

My conclusions...

- The benefits outweigh the challenges
- The onus is on feds to assist the state, tribal, territorial and local organizations that implement emergency response guidance
- Grants would be helpful! From??
- A staged and deliberate multi-year process makes the most sense to me

The End

Thank you!