NRC and the IMAAC

George Mason University Conference on
Transport and Dispersion Modeling
July 14, 2004

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NRC as Primary Federal Agency

- This presentation assumes that the event is one in which the NRC is the Primary Federal Agency under the National Response Plan.
- A significant release from an NRC-licensed nuclear power plant is an example.
- This type of event is somewhat unique because of the detailed planning that has been done.

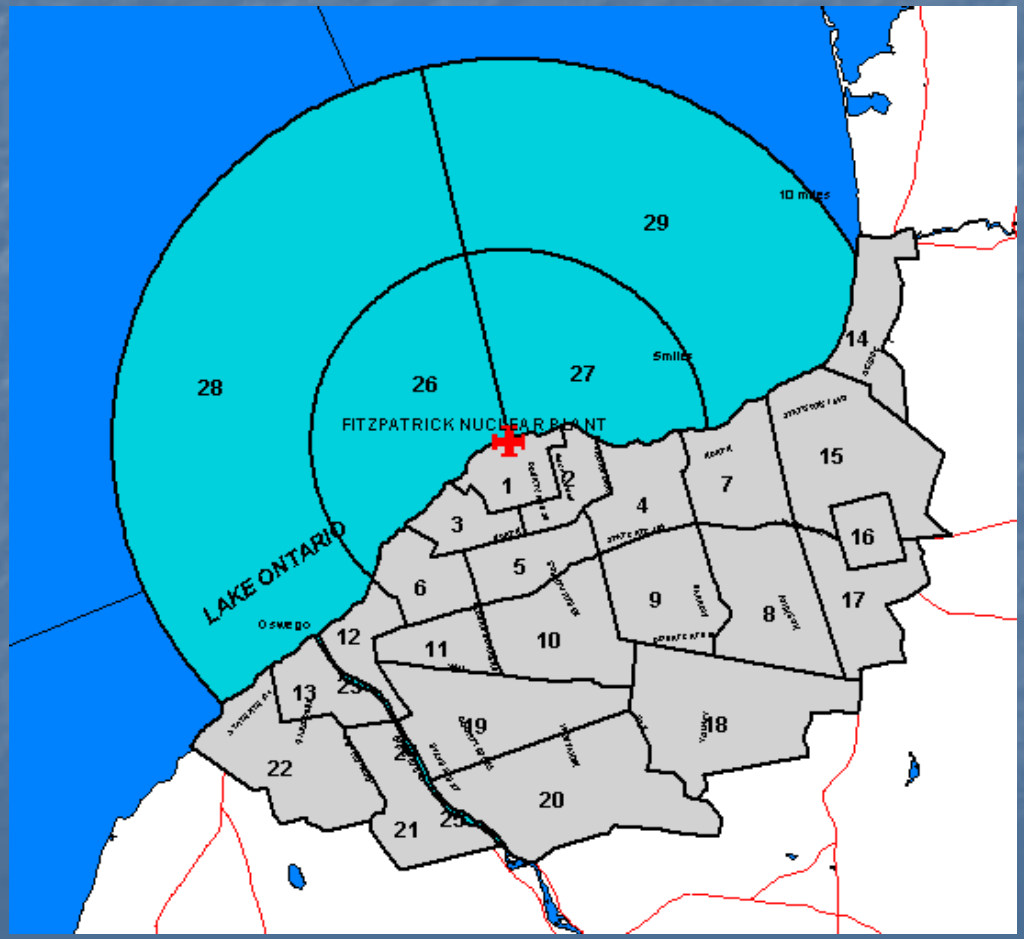
Initial callouts

- By regulation, an NRC-licensed facility experiencing a serious incident is required to promptly call the State and local authorities and the NRC.
- If NRC considers the incident significant, it will promptly staff its Emergency Operations Center.
- NRC will call other organizations including DHS, DOE, and NARAC (if a release is considered possible).

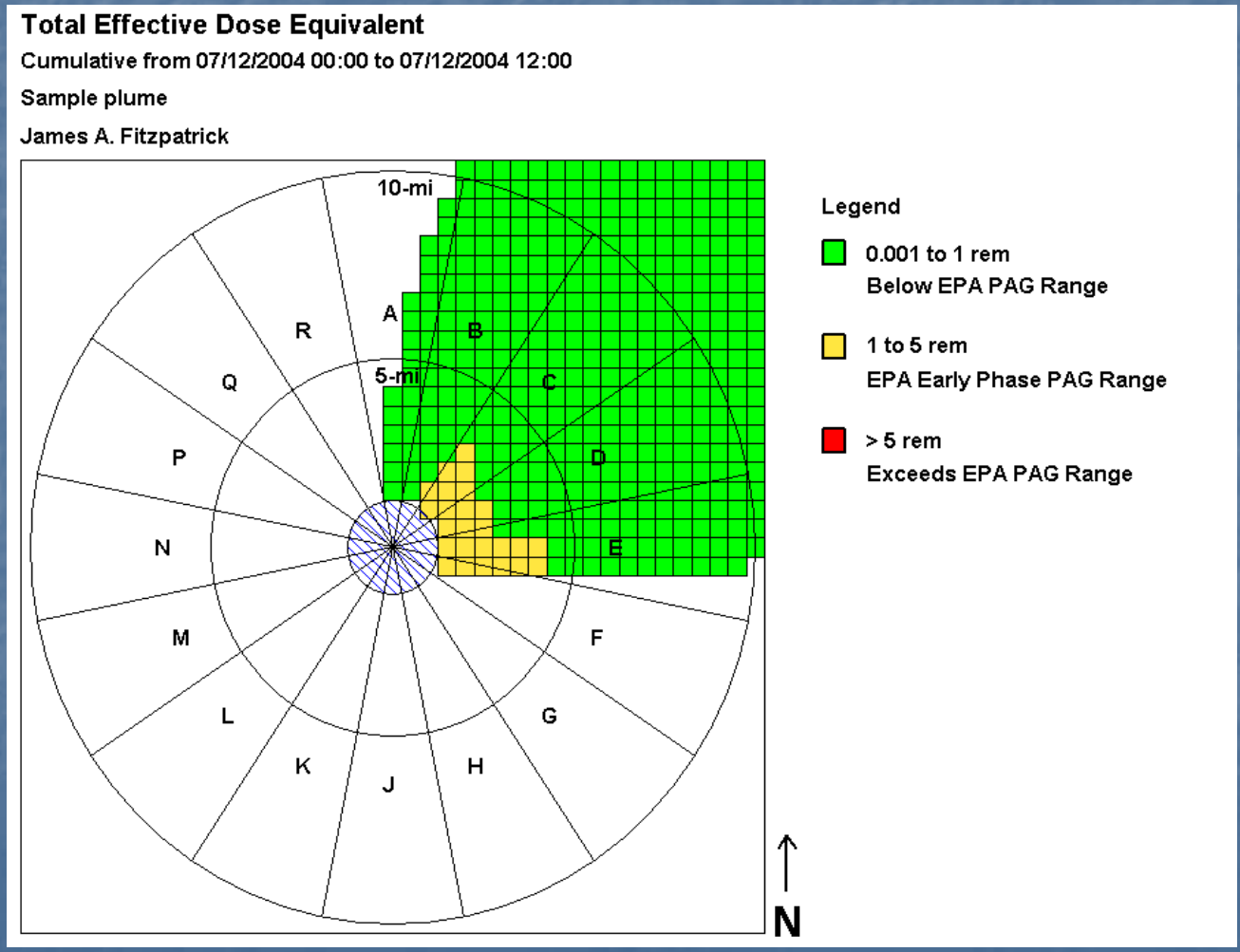
How a protective action recommendation originates

- Remember that the decision-makers have already made a decision.
- The decision is codified in State plans and is generally based on the EPA PAG manual.
- All we need to do is implement the decision that has already been made.

Predetermined protective action sectors



Example plume plot



How a protective action recommendation originates

- The process starts with the licensee.
- The licensee is required to make a protective action recommendation to the State and local authorities.
- There are two ways the licensee develops the recommendation: (1) automatic pre-determined recommendation based on plant conditions, and (2) recommendations based on dose projections.

Sharing information

- The licensee discusses its recommend-ation and its basis with State and local authorities and with the NRC.
- The licensee usually does not share its detailed plume plots and dose assessments with NRC because that would be too much detail and too difficult to interpret.

State and local responsibilities

- Local authorities are usually responsible for making the protective action decision.
- The State supports the local authorities.
- The State usually has an independent dose assessment capability.
- The State usually does not share its plume plots with NRC because that would be too much detail.

NRC role

- NRC uses its RASCAL code to independently generate a source term and dose assessment.
- NRC tells the State whether it agrees with the licensee's protective action recommendations.
- NRC does not tell the State what it should do. NRC only tells the State weather it agrees that the protective action decision being considered is adequate to protect the public.
- NRC usually does not share its plume plots with the State or the licensee because that would be too much detail.

NARAC role

- After NRC runs RASCAL, it emails the source term and dose projections to NARAC.
- NARAC uses the RASCAL source term to generate its own dose projections.
- NARAC provides its results to NRC.
- NARAC compares its results with the RASCAL results.
- NRC and NARAC discuss the comparison.

NRC use of NARAC results

- NRC will review the NARAC results to see if they are consistent with the results from the simpler RASCAL model.
- NRC will, in consultation with NARAC, resolve any differences large enough to affect protective action decisions.
- NRC will inform the State and DHS if the protective action decision should be modified.

IMAAC dose projection model

- For incidents at NRC-licensed facilities, RASCAL is the standard plume model.
- NARAC-generated results may be substituted for RASCAL results later on for those special situations in which complex wind fields have a significant effect.

Dissemination of plume results within NRC

- The NRC Executive Team, which speaks for the NRC during the incident, focuses on “big picture” issues and should not be bogged down in the details of plume plots.
- Generally, the Executive Team generally needs a map showing protective action recommend-ations and the basis for the recommendations.
- The Executive Team generally does not need to see plume plots.

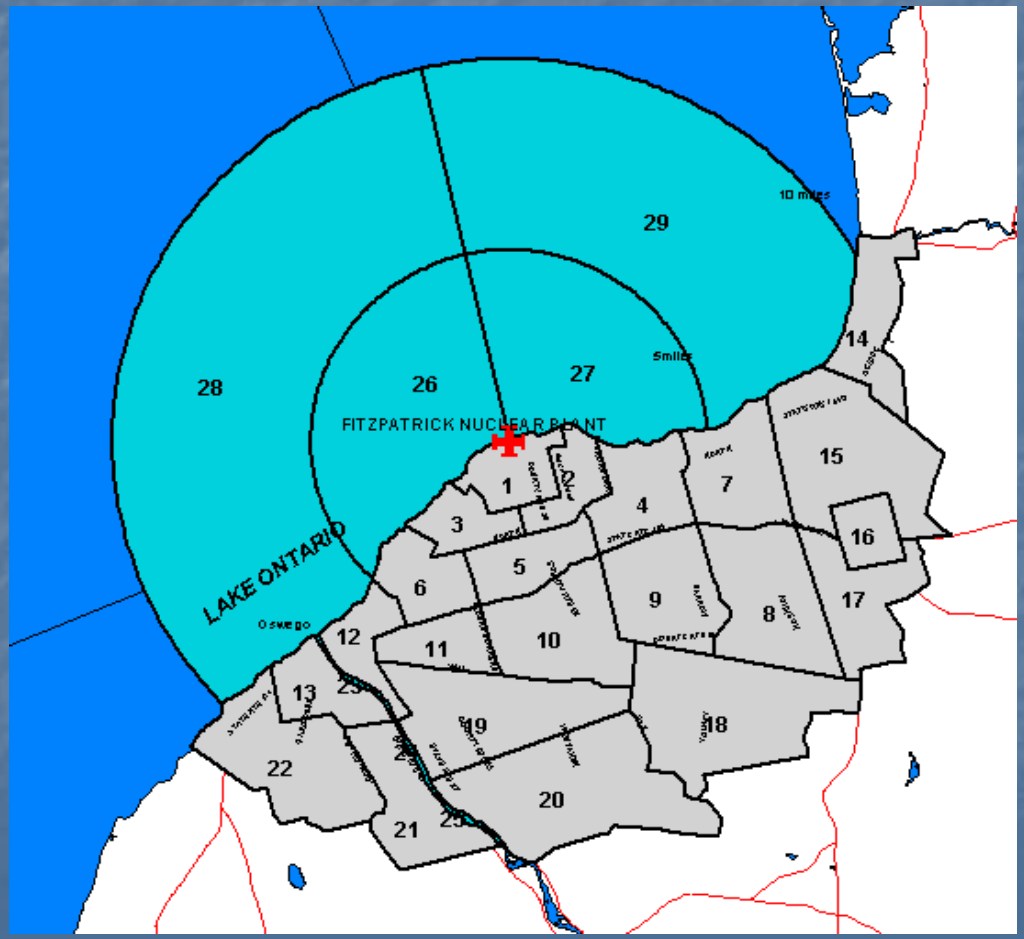
Dissemination of plume plots to IMAAC

- Since RASCAL results are sent to NARAC, the IMAAC (located at NARAC) will have both the RASCAL and NARAC plume results.
- NRC would not generally expect to share various “what if” results that it would run.
- NRC believes that the recommendation map must accompany the plume results for the information to be complete.

Dissemination of plume results to other Federal agencies

- How should be distributed? Will it be by NRC or IMAAC?
- In general, the NRC would prefer to distribute the protective action decision map rather than the plume results.
- FRMAC would be an exception and would receive the plume plots.

Sectors would be colored to show protective action decisions



Dissemination of plume results to the media and the public

- The early plume plots are very speculative because they are based on many assumptions and thus are not appropriate for public release.
- The information the public needs to know is what protective actions need to be taken and the areas where they need to be taken.
- Plume plots are not appropriate for this purpose because they are speculative, subject to continual revision, would be confusing and would not be helpful.