From: Ralph Meyer
To: Farouk Eltawila
Date: 2/2/06 5:02PM
Subject: Talking Points on AGHCF

Farouk,

Here are some bullets in case you are asked a question at the Commission briefing on Monday.

Ralph

CC: Harold Scott; John Voglewede; Michelle Flanagan; Mike Billone; Patrick Baranowsky; Paul Clifford

A-28

POTENTIAL CLOSURE OF ALPHA-GAMMA HOT CELL FACILITY (AGHCF)
February 2, 2006

- Argonne's main problem is with procedural violations in a nuclear facility, and its secondary problem is with the cost of operating that facility (the AGHCF).
- 80% of NRC's work involves unirradiated cladding and defueled irradiated cladding.
- 20% of NRC's work involves cladding with UO_2 fuel inside.
- Nearly all of this work was being done in the AGHCF, which also includes several rooms and laboratory areas outside of the actual hot cells.
- Beginning January 13, all activities and equipment not involving UO_2 are being moved out of the AGHCF.
- This 80% portion of the work will be done in the Irradiated Materials Laboratory (IML), which has lightly shielded hot cells and is not classified as a nuclear facility.
- The 20% portion of the work includes (a) defueling of fuel rod segments to provide defueled specimens for the other work, (b) integral LOCA tests on long specimens with fuel inside, and (c) crush-impact tests and mechanical bending tests with fuel inside [the fuel is bonded to the cladding and affects its mechanical behavior].
- We hope that the 80% reduction in activities in the AGHCF will address Argonne's problems sufficiently so that we will be permitted to complete the residual work there.
- We know that the AGHCF will be fully functional during this period (2006-08) and that it has the capacity to do NRC's work along side other planned work.
- If we are not permitted to do any more work in the AGHCF, then:

❑ Defueling can be done at another laboratory without major delays. However, shipment in and out of ANL would create additional activity in the AGHCF where the fuel now resides. It is not clear that there would be a net reduction in activity in the AGHCF. There would clearly be a big increase in cost for defueling.

❑ Integral LOCA testing can in principle be done at another laboratory, but testing equipment cannot be moved. In-cell apparatus is constructed for a particular hot-cell and manipulator configuration, which would not be the same at another laboratory. The in-cell equipment is contaminated with alpha material and it is too large to fit in the small casks that are used to ship fuel. The out-of-cell instrumentation was being shared with the out-of-cell apparatus and is needed for that work in IML. It can be moved back and forth from AGHCF to IML, but it cannot be given away because it is needed at Argonne. Schedule and cost would be substantially increased even if present designs and techniques are transferred. No other laboratory in the world is doing such testing of irradiated cladding with fuel inside.

❑ The spent-fuel crush tests and bending work could be done at another laboratory without major delays. That equipment has not yet been constructed.