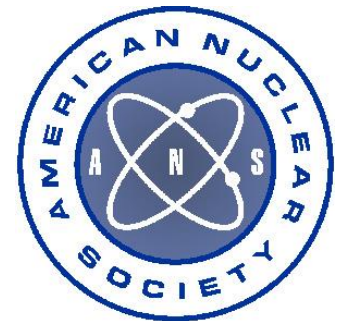


# Nuclear Recycling: The Logical Next Step

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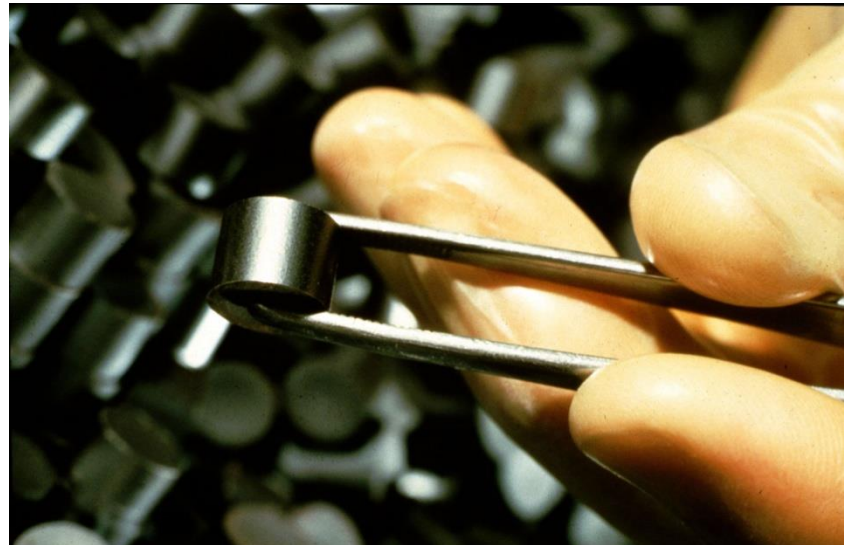
# Uranium Resource Utilization (US)

1%



# Open Fuel Cycle

- Mine
- Enrich
- Fabricate
- Use
- Store

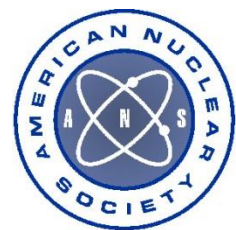


# Used Fuel Inventory

- 65 thousand metric tons
- Expected to be 150 – 200 thousand metric tons by 2050
- Stored at power plants



What does that look like?



# Why Recycle?

- Reduce future waste volume
- 1% is hazardous
- Rest is harmless or reusable
- Potential benefits as nuclear power expands
- Improved use of uranium



# Issues with Recycling

- Economic uncertainty
- Lack of infrastructure
- Abundance of uranium
- No 'crisis' prompting change
- Proliferation concern
- National policy



# Recommendation: What Not to Do

- No national policy change
  - Needs proven benefits
  - Needs industry endorsement
- Do not use conventional processes
  - Current method has bad reputation
  - Would never be accepted in the US
  - Old technology





# Recommendation

- New innovative process
  - Proliferation deterrent
  - More effective
  - Next generation compatible
- Pilot Program
  - Government run
  - Industry supported
  - Small scale demonstration



# Pilot Program Details

- Required facilities
- Regulations
- Funding
- Sale of recycled fuel
- Benefit to host region



# Challenges Facing a Pilot

- Significant investment
  - Setbacks are a possibility
- Long term commitment
  - Requires continued support



# Conclusions

- Nuclear fuel could be better utilized
- Benefits
- New recycling method
- Commercialization follows successful pilot



# Questions?

