



Unofficial History of DOE PCP

ERG-2009-PCP

2009 Packaging Certification Program Technical Review

Oak Ridge, TN



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

DOE Packaging Certification Program

Why Unofficial History of DOE PCP

- **Based on my history with DOE Packaging and Transportation of Radioactive materials from 1984 through today and**
- **Two regulation and literature searches that I performed for Jim Shuler in 2006 and 2008**
- **Also unofficial because this has not been approved by DOE. I have copies of majority of the documents used for this presentation.**



Atomic Energy Commission

- **Established by the Atomic Energy Act of 1946**
- **Congress declared that atomic energy should be employed not only in the form of nuclear weapons for the nation's defense, but also to promote world peace, improve the public welfare and strengthen free competition in private enterprise.**
- **Congress gave AEC extraordinary power and independence to carry out its mission**
- **The National Laboratory system was established from the facilities created under the Manhattan Project. Argonne National Laboratory was one of the first laboratories authorized under AEC as a contractor-operated facility dedicated to fulfilling the AEC mission.**



Atomic Energy Commission

- **The Atomic Energy Act Amendments of 1954 replaced the 1946 Act. This Act made the development of commercial nuclear power possible. The act assigned the AEC the functions of both encouraging the use of nuclear power and regulating its safety.**
- **An increasing number of critics during the 1960s charged that the AEC's regulations were insufficiently rigorous in several important areas, including radiation protection standards, nuclear reactor safety, plant siting, and environmental protection.**
- **By 1974, the AEC's regulatory programs had come under such strong attack that Congress decided to abolish AEC.**



The Energy Reorganization Act of 1974

- **The Energy Reorganization Act of 1974 put the regulatory functions of the AEC into the new Nuclear Regulatory Commission (NRC), which began operations on January 19, 1975.**
- **The oversight for nuclear weapons as well as the promotion of nuclear power were placed within the Energy Research and Development Administration.**



Energy Research and Development Administration

- ERDA began operations in October 1974 and was designed to manage the nuclear weapon, naval reactor, and energy development programs.
- BY 1977 when ERDA was absorbed by the new Department of Energy, it's focus was reflected in six program areas: fossil and nuclear energy; environment and safety; solar; geothermal and advanced energy systems; conservation; and national security.



1979 MOU Between NRC and DOT

- **The Memorandum of Understanding between NRC and DOT was published on July 2, 1979; 44FR 38690. This supersedes a 1973 Agreement between AEC and DOT.**
- **DOT is responsible for regulating safety in transportation of all hazardous materials, including radioactive materials.**
- **NRC is responsible for regulating safety in receipt, possession, use, and transfer of byproducts, source, and special nuclear materials. The NRC reviews and approves or denies approval of package designs for fissile materials and for other radioactive materials (other than low specific activity materials) in quantities exceeding Type A limits, as defined in 10 CFR Part 71**



1979 MOU Between NRC and DOT

- **The MOU addressed: Development of Safety Standards; Adoption of Safety Standards; Package Review; Inspection and Enforcement; Accidents and Incidents; National Competent Authority; Exchange of Information; and Working Arrangements.**
- **On December 3, 1979, the NRC amended its regulations in 10 CFR Part 71 to require that all shipments of radioactive materials by NRC licenses be made in accordance with DOT requirements. The effect of this amendment was to allow the NRC to inspect and enforce all of the transportation activities of its licensees at the licensee's facilities.**



The ERDA Years

- Naval Reactors decides to have NRC to the review of their packaging designs and NRC issues NRC CoC.
- Other parts of ERDA continue do packaging design and approval of these designs for ERDA shipments.
- November 11, 1974 AEC General Counsel issues review of “Responsibilities Under ERDA” (References to AEC in DOT regulations and how they apply to ERDA). Programs transferred to ERDA should cover all shipments previously made under AEC and talks about an exception to DOT regulations for radioactive material shipments made by ERDA. Was not clear to what extent if any DOT would need advise and consult ERDA for regulatory change.



The ERDA Years

- ERDA policy memorandum of August 8, 1975 “Regulatory Relationships Between ERDA, NRC and DOT. Two Recommendations: (1) ERDA would assume a similar role as other regulated Federal agencies, with a transition period to end July 1, 1978. (2) ERDA, NRC, and DOT proceed with the negotiation of a tri-partite revised Memorandum of Understanding reflection the adoption of Option B.
- Number (1) above in short said DOT did not need to confer with ERDA for new actions and that ERDA would go under NRC review of certificates on July 1, 1978.
- I have a copy of the draft MOU, but it is not clear if any action was taken to put this in place. This draft was based on the AEC DOT MOU of 1973.



ERDA to DOE a DOE GC Review

- **December 7, 1977 DOE General Counsel Review of “DOE Approval and Certification Authority Pertaining to the Transportation of Radioactive Materials”** This was mainly a review seeking the reversal of an unimplemented ERDA policy Decision on August 13, 1975 (including the draft MOU between ERDA, NRC and DOT).
- **The DOE GC made this statement: “DOE authority in this area comes from DOT regulations as set forth in Title 49 of the Code of Federal Regulations.”** In particular 173.7(b); 173.393 through 173.396.
- **“Section 173.7(b) applies only to escorted national security shipments of radioactive materials. “** These shipments are not subject to the hazardous material regulations 49 CFR 100-189.



ERDA to DOE a DOE GC Review

- Under 173.7(b) DOE as authority including safety regulations pertaining to approval of packaging designs and the issuance of certificates of compliance for these shipments.
- Note: During this time radioactive materials packaging and shipping regulations were in 49 CFR 173.394 through 173.396.T
- “The programs transferred to ERDA from the AEC covered all of the shipments of radioactive materials made by AEC.” Then the GC again made the point about exemption from the regulations because of 173.7(b).



ERDA to DOE a DOE GC Review

- “It should also be noted that the operational side of the AEC (the side subsequently transferred to ERDA) had the responsibility for issuing certificates of compliance, and any amendments thereto, for all packages to be used by license-exempt AEC contractors for the shipment of Type B, large quantity, and fissile radioactive materials, subject to Regulatory staff review and safety evaluation (49CFR 173.394-173.396). This division of authority was explicitly recognized in an agreement between the General Manager and the Director of Regulations dated June 1973. Thus, this responsibility was also transferred to ERDA.”
- The GC made the statement DOE has been transferred exactly the same functional authority , under the same limitations, that ERDA had pertaining to hazardous materials including the approval of package design and certification of compliance for its own transportation of radioactive materials and such transportation by its contractors or agents.



ERDA to DOE a DOE GC Review

- **“The authority now possessed by DOE under 49CFR 173.393 through 173.396 can either be rescinded or changed by DOT at any time since it stems from the Secretary of Transportation’s general statutory authority to issue regulations for the safe transportation in commerce of hazardous materials. Thus, for any number of legitimate reasons, the Secretary could promulgate new or different regulations.”**
- **“However, the basic authority now possessed by DOE as implemented by 49 CFR 173.7(b) pertaining to escorted national security shipments, in my opinion, cannot be rescinded or altered except by Congress through legislative process since it originates from a specific legislative mandate.”**



December 1, 1980 Change to HMR

- On December 11, 1980 DOT made minor changes to the regulations that were effective December 1, 1980.
- “The purpose of this amendment to the Hazardous Materials Regulations (HMR) of the Department of Transportation is to change or delete certain incorrect references, to correct certain spelling and editorial errors, and to make minor regulatory changes which will not impose and restrictions on persons affected by these regulations.”



December 1, 1980 Change to HMR

- **No public notice was given for this change since the amendments did not impose additional requirements.**
- **The following minor change removed the ability for DOE to issue DOE certificates: In 49 CFR 173.393a and 173.394 thru 173.396 references to the Atomic Energy Commission are changed to the Nuclear Regulatory Commission where ever they appear.”**
- **This change basically eliminated the authority for DOE to issue DOE CoCs and would require DOE to have all of its certificates approved by NRC.**



DOE Works to Restore DOE Certification Authority

- In July 1979, DOE went to DOT (and I think NRC) with proposed MOU for DOT and DOE and DOE and NRC. These were in response to the DOT NRC MOU issued in early July 1979. I found copy of draft DOE NRC MOU but not the draft DOE DOT MOU. DOT said they would look at it in a letter dated August 3, 1979.
- There were several letters between DOE and DOT to restore the DOE certification. DOT's main response was how does he DOE certification process work and who are the players.



DOE Works to Restore DOE Certification Authority

- **March 3, 1980 DOE Letter to DOT states the following as the DOE certification process: “When a DOE contractor develops a new shipping container design, the contractor prepares a Safety Analysis Report for Packaging (SARP), the contractor’s organization approves the safety of the package, and submits the SARP to the cognizant DOE field office for an additional safety review and approval. The appropriate field organization divisions evaluate the SARP and issue a Summary Engineering Report. If the review results are satisfactory, the responsible field manager (or designated representative) issues a DOE Certificate of Compliance. That Certificate confirms that the new packaging design and its authorized contents meet applicable transportation rules and regulations and the packaging is then used for DOE license-exempt shipments. The field office forwards copies of the SARP, the Summary Engineering Report and the Certificate of Compliance to NRC through DOE Headquarters for additional independent safety review as may be appropriate. NRC may issue an NRC Certificate of Compliance which would permit NRC licensees to use the new package design.**



DOE Works to Restore DOE Certification Authority

- **March 3, 1980 DOE Letter to DOT also stated that congress gave DOE the authority to issued CoC to support the following:**
- **We do not believe there would be any significant increased benefit to public health and safety; certainly not commensurate with the additional cost of external regulation in terms of time and money, especially in light of DOE's record of safe transportation over the past thirty years.**



DOE Works to Restore DOE Certification Authority

- **External regulation could also result in schedule delays and increased costs for DOE national security related shipment activities as well as research and development programs.**
- **The unique requirements of DOE shipments of radioactive materials which are often one-of-a-kind, do not lend themselves to packaging design certification by another agency.**
- **The letter than gave a couple of cases where NRC actions at resulted in delays with increase costs and no benefit to safety.**



DOE Works to Restore DOE Certification Authority

- **The November 12, 1981 letter from F.C. Gilbert, Acting Deputy Assistant Secretary for Nuclear Materials to DOT provide a more detailed summary of the DOE CoC process which tracks well with the DOE March 3, 1980 letter except for the last step in the process: “Copies of the SARP and associated certificates are provided to DOE Headquarters and to the NRC. DOE sends the SARP and associated certificates to the NRC to assist in the transfer of new or novel technology, for possible commercial applications by NRC licensees, and to elicit NRC staff opinions on certain technical applications.”**



DOE Works to Restore DOE Certification Authority

It appears that there were two kinds of reviews that were requested by DOE headquarters when they sent SARP and certificates to NRC for review. (1) If shipments would be made by NRC license holders, DOE requested a review that would result in NRC issuing a CoC. DOE would respond to NRC comments and work to get NRC CoC issued. (2) Technical Review of DOE CoC that would not be used by NRC license holder. Just a technical review and DOE did not have to take action on NRC comments. NRC likely gave these reviews a very low priority and did not likely conduct many reviews.

This is my guess and is not based on hard facts!



DOT Issues 49 CFR 173.7(d)

Federal Register February 18, 1982 Summary: The purpose of this amendment to the Hazardous Materials Regulations of the Department of Transportation is to reinstate authority to the Department of Energy (DOE) for the evaluation and approval of radioactive materials package designs. Prior authority was removed effective December 1, 1980. This action is necessary in order to avoid delays in the approval process which could severely limit the effectiveness of DOE nuclear programs.



DOT Issues 49 CFR 173.7(d)

This statement also appears in the Federal Register February 18, 1982: In view of the strict procedures the DOE requires to be followed to certify its own package designs for radioactive materials, the MTB agrees that DOE packaging requirements and evaluation techniques which demonstrate compliance with safety standards equivalent to those contained in 49 CFR Parts 100-177 and 10 CFR Part 71 are sufficient to protect the public health and safety.



DOT Issues 49 CFR 173.7(d)

49 CFR 173.7(d) Notwithstanding the requirements of sections 173.393a and 173.394 through 173.396 of this subchapter, packagings made by or under the direction of the U.S. Department of Energy may be used for the transportation of radioactive materials when evaluated, approved, and certified by the Department of Energy against packaging standards equivalent to those specified in 10 CFR Part 71. Packages shipped in accordance with this paragraph shall be marked and otherwise prepared for shipment in a manner equivalent to that required by this subchapter, for packaging approved by the Nuclear Regulatory Commission.



1982 to 1985

- 1983 HQ Packaging certification function transferred to ASDP from ASPE. ASDP drafted uniform procedures but they were never approved.
- DOE had two goals for the MH-1A container (1) DOE CoC to transport DOE-owned TRIGA and MTR fuel assemblies and (2) NRC CoC to transport TRIGA and MTR fuel assemblies from NRC licensed reactors. The MH-1A had a NRC CoC which expired on August 31, 1979, but not for this material.
- The next page is a summary of some of the actions on the MH-1A.



1982 to 1985

- SARP submitted to NRC 10/17/79.
- NRC request addition information (RAI) primarily structural questions on 4/4/80
- DOE ALO issues Original CoC on June 18, 1982 with no expiration date.
- SARP resubmitted to NRC on 9/7/82
- NRC on 2/24/83 request additional RAI, five pages of questions. Meeting held with NRC on 5/2/83 to discuss questions.
- Fabrication has been done and MH-1A Casks are inspected for DOE/AL on 12/17/84
- Rev 2 of DOE/AL CoC issued 1/7/85 with expiration date of January 30, 1990.
- MH-1A principals met with NRC informally to discuss SARP and the answers to questions.
- BNL shipments under DOE/AL CoC begin.
- SARP and response to NRC questions sent to DP-122 to be forwarded to NRC



1982 to 1985

- **January 17, 1985 letter from Ronald Cochran, Deputy Assistant Secretary for Nuclear Materials to Cynthia Douglas of DOT stated that DOE had met informally with NRC of January 10, 1985 and that NRC would be issuing minutes from the meeting and that DOE would submit a formal response to NRC in February 1985. It stated that DOE CoC was in place and shipments would be made from BNL. It also stated “We remain convinced that the MH-A cask has been adequately analyzed in accordance with appropriate regulations that have been established to ensure health and safety.”**



1982 to 1985

- On May 22, 1985 Richard E. Cunningham of the NRC sent letter to David Leclaire of DOE concerning the MH-1A and a meeting with DOE, DOT, and NRC on May 21, 1985 on these concerns. The letter stated: " As you know, we are currently reviewing an application for NRC certification of the Model No. MH-1A package. The premise upon which the application for NRC certification is based is that the package will retain all contents, including radioactive gases, following the accident condition tests of 10 CFR Part 71, Packaging and Transportation of Radioactive Material. Although this approach might not be the only way in which the package could be demonstrated to meet 10 CFR Part 71, the analysis in the application is intended to demonstrate that the package will remain leak-tight. As discussed during the May 21 meeting, our preliminary finding is that the structural portion of the analysis, as documented in the application, is defective. It does not provide a basis to support the conclusions drawn."



1982 to 1985

We will now look at the DOT letter of May 23, 1985.



1982 to 1985

- In 1985 Thirteen other DOE packaging questioned by Congressmen since DOE certified the packages and failed to respond to questions on structural integrity raised by NRC.
- 1985- Many DOE certified packagings are suspected of failing to meet regulatory requirements due to inadequate SARPS.
- By Memorandum on October 16, 1985 to the field, the Acting Assistant Secretary for Defense Programs indicate that the radioactive materials packaging certification authority will be withdrawn from the field offices and centralized in Defense Programs at Headquarters.



Headquarter Certifying Official

- **Dr. Julio L. Torres, DP-4 was appointed the Headquarters Certifying Official effective January 6, 1986 and the formal action establishing this function was issued on January 17, 1986. This document listed 18 functions and was signed by the Assistant Secretary for Defense Programs.**
- **On March 25, 1986 Joseph Salgado, Under Secretary sent a memorandum to all the Operations Office announcing the establishment of the Centralized Packaging Certification and listed actions to be processed through the HCO.**



Headquarter Certifying Official

1. Review application for packaging certification.
2. Perform evaluation and analysis of SARP by contractual agreement through CH with Argonne Laboratory.
3. Issue DOE certificates of compliance.
4. Review applications for renewal of DOE certificates.
5. Receive and review applications for NRC certificates and forward applications to NRC as appropriate.
6. Provide a central point of coordination between DOE (EH/OSS), DOT, NRC, and IAEA on the interpretation of standards



Headquarter Certifying Official

7. **Maintain a central Headquarter records system for DOE and NRC certificates of compliance.**
8. **Maintain a central records system for DOE safety analysis reports for packaging.**
9. **Develop and promulgate DOE policies and procedures for DOE hazardous material packaging certification.**
10. **Oversee development and coordination of a training program for packaging certification.**
11. **Maintain and coordinate DOE Specification 7A certifications.**
12. **Assist public affairs in responding to inquiries related to hazardous material packaging certification.**



Headquarter Certifying Official

13. **Coordinate within the DOE (RW, NS, NR, EH/OSS) all matters pertaining to hazardous material packaging certification.**
14. **Serve as lead in representing and defending DOE before other agencies on issues related to hazardous material packaging certification policies.**
15. **Administer and develop a packaging certification guide.**
16. **Request IAEA certificates of competent authority, including new certificates, renewals, and revalidations from DOT**
17. **Maintain DOE central records on IAEA certificates of competent authority, DOT exemptions and renewals, and material forms.**
18. **Administer the development of radioactive material packaging (RAMPAC) computer program for tracking the status of radioactive material packagings.**



1988 DOE HQ Management and Administration Audit

- **“It is imperative that the Department retain (its delegated authority from DOT to certify packagings) in order to meet DOE national security and other key programmatic objectives.”**
- **“The loophole (in DOE Order 1540.2) which enables Operation Offices and their contractors to bypass DP-4 should be eliminated.”**
- **“DP4.4 should continue to serve as the DOE focal point for packaging certification matters.”**



September 1988 GAO Audit

September 1988 GAO Audit, Nuclear Health and Safety, “DOE Needs to Take Further Actions to Ensure Safe Transportation of Radioactive Materials.

Requested by Senator John Glenn, to review how effectively the Department of Energy is self-regulating its transportation of high-level radioactive materials.

The report included recommendations to the Secretary of Energy designed to strengthen Energy’s regulation of its transportation program.



GAO Audit

Look a Executive Summary of GAO Audit



Organization Changes for Centralized Packaging Certification

- **1990 or 1991 Packaging Certification and Safety Programs was transferred to EH in a move to preserve the independence of the program objectives.”**
- **1996 Transferred to EM pursuant to SA138 to achieve efficiencies in supposedly overlapping transportation safety (EH) and transportation operations (EM) programs.**
- **EM-24 to EM-63 to EM-14 to ???”**



18 Functions from 1986 Organization

1. Review application for packaging certification.

This is a continuing function. We review applications for DOE CoCs, NRC CoCs, and DOT CACs and CoCAs

2. Perform evaluation and analysis for SARP by contractual agreement through CH with Argonne Laboratory.

At start it was ANL and Eagle Research Group, Inc (ERG) under contract to AN. Now ERG under contract to Manager DOE PCP, and support from ANL, LLNL, SRNL, and ORNL.



18 Functions from 1986 Organization

3. Issue DOE Certificates of Compliance.

There are currently 16 active DOE CoCs and two new DOE CoCs in the review process: 9979 Type AF and 9315 ES-3100 based on NRC CoC.

4. Review applications for renewal of DOE certificates.

Certificates are renewed for 5 years. At renewal look at incorporating addendums and need to bring to current regulations.



18 Functions from 1986 Organization

5. **Receive and review applications for NRC certificates and forward applications to NRC as appropriate.**

I will go over this in more detail in a later presentation. In short, accept for Naval Reactors and the WIPP program, NRC will not accept request for any actions unless they come through DOE PCP.



18 Functions from 1986 Organization

6. Provides a central point of coordination between DOE (EH/OSS), DOT, NRC, and IAEA on the interpretation of standards.

DOE PCP continues to provide this function, has a close working relationship with these agencies, and in most cases the agencies will not look at requests from DOE unless they come through DOE PCP or they will contact us and ask about the request they have received and what action they should take.



18 Functions from 1986 Organization

7. **Maintain a central Headquarters records system for DOE and NRC certificates of compliance.**
8. **Maintain a central records system for DOE safety analysis reports for packaging.**

These functions has been done by ERG since the 1986. I currently perform these functions as the Docket Manager. All current DOE and NRC CoCs are on RAMPAC and this effort is supported by SRNL.



18 Functions from 1986 Organization

9. **Develop and promulgate DOE polices and procedures for DOE hazardous materials packaging certification.**

This function is done by the Manager DOE PCP, with support from ERG and the Labs under the signature and approval of HCO.

10. **Oversee development and coordination of a training program for packaging certification.**

The DOE PCP program has developed and is conducting the following courses: SARP Review (LLNL); SARP Preparation (SRNL); Packaging QA (ANL); and the new Packaging Operations (SRNL).



18 Functions from 1986 Organization

11. Maintain and coordinate DOE Specification 7A certificates.

This function is for DOT Specification 7A Type A packaging that are designed and/or fabricated by DOE/DOE contractors. This program was under the Mound site and then the RL site. Records of these designs are on RAMPAC. Today the majority of 7A Type A packaging are procured from DOE certified manufactures by DOE contractors and this is not an active program in DOE PCP.



18 Functions from 1986 Organization

12. Assist public affairs in responding to inquiries related to hazardous material packaging certification.

This function is done by the Manager DOE PCP supported by ERG and the Labs.

13. Coordinate within the DOE (RW, NS, NR, EH/OSS) all matters pertaining to hazardous material packaging certification.

This function is done by the Manager DOE PCP supported by ERG and the Labs. This also includes work with NNSA, DOE GC, and DOE Contracting Office



18 Functions from 1986 Organization

- 14. Serve as lead in representing and defending DOE before other agencies on issues related to hazardous material packaging certification policies.**

This function is done by the Manager DOE PCP supported by ERG and the Labs. The Docket Manager (ERG) has represented the Manager DOE PCP had some of these meeting.

- 15. Administer and develop a packaging certification guide.**

This and other guides have been developed and are on RAMPAC. They are developed and maintained by the Labs supporting the Manager DOE PCP.



18 Functions from 1986 Organization

16. Request IAEA certificates of competent authority, including new certificates, renewals, and revalidations form DOT.

This function is done by the Manager DOE PCP with support from the Docket Manager (ERG).

17. Maintain DOE central records of IAEA certificates of competent authority, DOT exemptions and renewals, and material forms.

This is done by the Docket Manager (ERG). Active certificates are on RAMPAC and this effort is supported by SRNL. DOE PCP.



18 Functions from 1986 Organization

- 18. Administer the development of radioactive material packaging (RAMPAC) compute program for tracking the status of radioactive material packaging.**
- **Developed by the Transportation Technology Center of Sandia National Laboratories in 1981 to support research development activities.**
 - **1983 transported RAMPAC from a System 2000 database management system (DBMS) to a NOMAD2 DMMS operating on an IBM 4341 mainframe at INL**



18 Functions from 1986 Organization

18. RAMPAC continued.

- **1983-1985 INL then briefing in Sandia, then to Oak Ridge Operations Office.**
- **Up to the end of 1985 the data mainly came off the NRC Orange Book. DOE CoCs were not consistently listed because each Operations Office issued DOE CoCs**
- **Starting in 1986 DOE CoCs were listed and the CoC information was added and DOT certificates were added.**



18 Functions from 1986 Organization

18. RAMPAC continued.

- During this time, NRC and DOT certificates were mailed to the Operation Offices and there was a delay in getting the data on the RAMPAC that was maintained in Oak Ridge. A great deal of paper was being sent to each Operations Office from DOE PCP with support from ERG.
- At Oak Ridge, RAMPAC resided on a Digital Equipment Corporation (DEC) VAX mainframe cluster that consisted of a VAX 3100 and VA 3600 computer. User access to the system was through a dial-up, time sharing connection: users were required to have a personal computer (PC), a Hayes-compatible modem, and printer. The menu-driven executive portion of the RAMPAC program was written in a combination of DEC Command Language and FORTRAN, and DBMS portion was developed using third-party software package called DRS.



18 Functions from 1986 Organization

18. RAMPAC continued.

- **Users performing searches had the option of producing “canned” reports or ad-hoc reports.**
- **Starting in the mid-1990’s, the DOE sponsor for RAMPAC had been considering the option of moving the database to an Internet-based system operating from a PC platform as more economical and easily managed approach than the Oak Ridge mainframe-based system.**



18 Functions from 1986 Organization

18. RAMPAC continued.

- At DOE direction, the RAMPAC system was shut down in April 1997 and the certificate data files provided to DOE in a delimited ASCII format.
- ERG developed the Internet-based version of RAMPAC and it went on-line on the World Wide Web in September 1997. This was mainly developed by Steve Priemeau.
- When I came onboard in late December 2005, SRNL starting assisted with the computer work in maintaining RAMPAC.



18 Functions from 1986 Organization

18. RAMPAC continued.

- **With the excellent support of SRNL RAMPAC has developed in to an easier to use and more complete system.**
- **Jim as allowed me to make many changes to RAMPAC that made it more user friendly to DOE and DOE contractors in the field and increased use by other agencies and packaging personal both in the US and Internationally.**
- **In June 2008 RAMPAC went from rampac.com to rampac.energy.gov and from operating on a PC at ERG to operating on PCs at the SRNL site.**
- **RAMPAC continues to improve, be more user friendly, and provide more information.**



Grandfathering

- 1986 goal to have all DOE CoCs be to current regulations
- 1988 issued memo for B() type CoCs that were according to federal regulations expire on October 1, 2008, would be renewed once for five years and then expire or brought up to current regulations.
- Myself and others push to let DOE CoCs in the above group expire and just use the NRC CoC
- July 2006 NRC starts charging hourly fee as well as annual fee.
- 2007 DOE PCP issues DOE CoCs based on NRC CoC and now DOE CoCs are grandfathered following 10 CFR 71.19



October 1, 2008

- **Many DOE and NRC CoCs and DOT Specification Packaging (6M) canceled on October 1, 2008.**
- **At first work DOE PCP worked closely with NRC and DOT on possible actions to limited extension for very special conditions.**
- **Error made in DOT and NRC regulations in 2006 resulted in special process for NRC and DOT (actions need from both to perform extension).**
- **Worked with DOT to do similar process for DOE CoCs but did not get approval.**
- **Issued 5 DOE Exemptions for special one time shipments.**



DOE PCP Today

- **Support from 4 labs and ERG.**
- **Very good training courses and new one coming on line.**
- **Very experience reviewers and applicant are more prepared.**
- **Process for working with applicant to ensure responses are complete prior to formal submittal and SARP updates is working good (better product, quicker review, and less rounds of questions.**
- **Jim has done an excellent job of managing work and obtaining funds.**



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DOE PCP Today

- **RAMPAC is a very good web site that is being used by DOE contractors, DOT, NRC, students, NRC license holders, and internationally packaging and transportation personnel.**
- **We are issuing certificates and our process is equivalent to the NRC process.**
- **We have a good working relationship with DOT and NRC.**
- **Our QA oversight is coming along very well. We are not yet where we need to be and want to be, but we are moving in the right direction.**

