SHOT LIST
B-roll ATOMS for PEACE 50th anniversary
Running time: 55 min 21sec

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Timecode midpart Min/sec	Questions to Dr. Mohamed ElBaradei, Director General of the International Atomic Energy Agency.
00:07	Question #1: 50 years after President Eisenhower delivered the "Atoms for Peace" speech at the UN, to what extent has his vision been realized?
01:17	Question #2: The biggest challenge for the Agency here has been non-proliferation and you had to strengthen the system. Can you tell us a little bit about what those challenges have been?
04:14	Question #3: You have recently advocated that the system is not yet perfect and there need to be some changes in the system, particularly in the area of ability to enrich uranium, ability to reprocess fuel for plutonium. What are your proposals and why would it help?
05:53	Question #4: Another factor that you are grappling with as an Agency is the post September 11 recognition that non-state actors or terrorists could get their hands on either nuclear material, or radiological material, or at worst, nuclear weapon. Do you see this as a threat and if so, what are you and the Agency doing to combat it?
08:11	Question #5: The final point – President Eisenhower had this vision that while the atom could be dangerous source and needs to be controlled, on the other hand it has a tremendous potential. You mentioned these nuclear technologies that most people don't know anything about . Can you describe what your Agency is doing and what kind of technologies are helping the developing world in the nuclear field?
10:56	Replicas of the first two atomic bombs dropped on Hiroshima and Nagasaki kept in a nuclear museum, Albuquerque , USA
11:18	Atomic bomb explosion
11:41	Missiles on a parade, submarine afloat.
12:08	Fragments of President's Eisenhower speech "Atoms for Peace"
12:42	Exterior of the IAEA today, shots of of General Conference
13:43	Kandy General Hospital (Sri Lanka), patients waiting
14:33	Examination of cancer outpatients, cancer patients ward
15:30	Trial of a fixation device to immobilize the patient during radiation therapy
16:18	Patients waiting for radiation treatment with cobalt-60 machine.
16:38	The treatment. Pointed dose of radiation from Cobalt-60 radioactive source destroys malignant cells . A single session lasts 50 sec, the whole treatment may last 1-2 months.
18:18	Dead calf, victim of tse-tse bite. These flies are an obstacle to animal husbandry in sub-Saharan Africa.
18:34	Tse-tse fly rearing facility, Tanga (Zanzibar)
18:51	Tse-tse flies are reared in this facility, males are sterilized in a gamma chamber and released into the wild from an airplane. After mating no offspring is produced, the fly population dwindles and dies out.

20:34	Healthy animals, milking a cow, child drinking milk
21:08	Cyclotron facility, production of radioisotopes for medicine
24:01	Taking sample of water for hydrological analysis
25:33	Views of hydrology laboratory and different techniques to determine properties of water
27:00	Cutting bone grafts used in orthopaedic surgery
27:21	Preparation of bone grafts for irradiation
28:05	Sterilization of bone grafts in a gamma chamber
29:05	Orthopaedic surgery
29:27	X-ray, metal fixtures after surgery on bone cancer
29:43	Patient who received bone graft to compensate for loss of bone due to bone cancer
30:15	Views of nuclear power plants. Nuclear power produces about 16% of electricity worldwide.
32:20	01:03:58 Full-scale aircraft impact test. (An F-4D PHANTOM aircraft. Impact velocity 774 km/h. Conducted at SANDIA National Laboratories, Albuquerque, New Mexico, USA, 19 April 1988. Funded by MUTO INSTITUTE OF STRUCTURAL MECHANICS Inc., Tokyo, Japan., "The Target" – reinforced concrete block 7 m x 7 m x 3.66 m (thick). Weight: 469 Ton. Aircraft was completely destroyed, target face had superficial damage, with penetration depth of 60 mm in the engine region and 20 mm in the fuselage region. Target displacement 1,88 m
33:14	Views of Temelin nuclear power plant, Czech republic
33:59	At the entry gate, identification procedure includes palm recognition
34:48	Section of the fence, sign ATTENTION-GUARDED OBJECT- NO ENTRY
35:45	Surveillance cameras inside the plant
35:51	At the surveillance control room Simulated exercise to check the effectiveness of different alarm systems. The exercise is carried out by members of IPPAS (International Physical Protection Advisory Service), these missions are organized by the IAEA (International Atomic Energy Agency)
36:28	Members of IPPAS watching the exercise
36:48	View of control room and spent fuel pond at SAFARI research reactor in South Africa.
37:12	Inspector with a night vision device checking spent fuel assemblies in water pool. Under the NPT the IAEA has the mandate to verify that civilian nuclear material is not diverted to military purposes
37:28	A pan from blue light to the inspector (this light is the so-called Cherenkov blue, luminescence produced by irradiated fuel)
37:49	Zoom into Cherenkov blue, close –up of an inspector
38:19	Safeguards inspection of an inventory of fresh fuel assemblies at a nuclear power plant. Fresh fuel is safe to handle whereas spent fuel,which sustained fission for about 3 years in a reactor, is highly radioactive and is kept underwater for about 5 years.
38:46	Fixing IAEA safeguards seal to prevent unauthorized use
39:24	Inspection of a nuclear facility, checking remote control equipment
40:31	Inspecting integrity of fiber optic seals at Hanford facility, USA

41:23	Views of Tuwaitha research centre near Baghdad, damaged during Gulf war bombing in 1991. Episodes 41:23/45:04 are archive video shot in 1991-92 during IAEA inspections in Iraq.
41:39	Inspection of research reactor IRT 5000 , also destroyed
42:34	Pieces of calutrons (huge devices used for uranium enrichment), inspecting the field, close-ups
43:05	Inspecting the site, close-ups of calutron wiring and other parts
43:49	Aerial view of Ash-Sharqat, part of a former clandestine nuclear weapons production complex
44:29	Destruction of buildings relevant to nuclear weapons production
45:04	IAEA inspectors document results
45:18	IAEA inspectors enter a nuclear facility in South Africa. This country created and dismantled its nuclear weapons programme. By 1994 IAEA declared that it verified that SA nuclear weapons facilities had been dismantled.
46:02	Inspectors overlooking part of former secret complex in SA
46:24	Building belonging to former nuclear bomb complex
47:33	Safety vaults where nuclear charges of atomic bombs were previously stored
48:12	IAEA inspectors in the field, ready to collect environmental samples
48:53	Inspectors in the field, nuclear power plant in the background, taking samples. Under strengthened safeguards , IAEA inspectors have unrestricted access to facilities and can collect environmental samples for further analyses. Nuclear techniques allow to see “traces”of any undeclared activity if these traces appear- even in microscopic amount of radioactive material - in the environment.
50:29	Taking smear sample off a wall
50:44	Water sampling on the perimeter of a nuclear power plant
51:18	Vegetation sampling
52:10	Views of nuclear facilities in North Korea. (1995 archive)
53:33	IAEA Director General Dr. Mohamed ElBaradei after meeting with Iranian delegation headed by Dr. Hassan Rowhani, the Secretary of Iran’s Supreme National Security Council (November 2003)
54:21	IAEA Board of Governors