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Title: **THE DOE/GOSATOMNADZOR COLLABORATION, PROJECT 3: PROVIDING EQUIPMENT AND SUPPORT FOR GOSATOMNADZOR INSPECTION ACTIVITIES IN RUSSIA**

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(SUMMARY)**

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DISCLAIMER

The Department of Energy/Gosatomnadzor Collaboration, Project 3: Providing Equipment and Support for Gosatomnadzor Inspection Activities in Russia*

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In June 1995, the US Department of Energy's (DOE's) Secretary O'Leary and Gosatomnadzor's (GAN's) Chairman Vishnevsky signed the US-Russian Program of Cooperation between the DOE and GAN, The Russian Federal Nuclear and Radiation Safety Authority, on Nuclear Material Protection, Control, and Accounting. In October 1996, Project 3, addressing the provision of "Materials Control and Accounting (MC&A) Equipment for GAN Inspectors," was formed.

Project 3 consists of two subprojects: Project 3.1–providing MC&A equipment to GAN inspectors; and Project 3.2–the development of Russian indigenous MC&A equipment capability for GAN.

The objective of Project 3.1 is to provide equipment for use by GAN inspectors during independent inspections of facilities that contain direct-use material. To accomplish this, Project 3.1 develops the initial training for GAN instructors on the instruments provided by the US and contracts with Safety Limited, a GAN contractor for developing methodologies and procedures for using the equipment and acceptance checkout and delivery. The equipment deliveries were divided into three phases to fit within the DOE budget and priority constraints.

With the equipment delivered to the inspectors, Phase 1 is complete. Conducting a GAN inspection with US participation in Gatchina is the last deliverable for Phase 1. Phase 1 consisted

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of checking out the equipment in the US, training the GAN instructors in Los Alamos, delivering the equipment to Moscow, checking out the equipment and verifying the inspectors in Moscow, developing methodologies and procedures for using the equipment for GAN inspections, and delivering the equipment to the GAN regions.

Phase 2 has been started by purchasing and checking out neutron coincidence counting (NCC) equipment at Los Alamos. The GAN instructors have been trained on NCCs, cherenkov vision devices (CVDs), ultrasonic thickness gages (UTGs), and tamper indicating devices (TIDs) at Los Alamos. Phase 3 has been delayed to fiscal year 1999 (FY99) due to budget constraints.

Project 3.1 helps GAN to develop Technical Support Centers and an Analytical Laboratory for independent analysis. Technical support centers will be established in four regions with the first in Novosibirsk. The primary missions under Project 3.1 will be equipment maintenance, calibration, and tracking and TID tracking. An Analytical Laboratory for independent analysis will be established at the All-Russia Research Institute of Inorganics (VNIINM). This laboratory will be used to analyze nuclear material samples obtained from GAN inspections and through activities conducted by other Russian federal agencies. It will also be used to establish a nuclear materials standards program for Russia.

Project 3.2 addresses the important issue of sustainability for safeguards equipment in Russia. GAN's Project 3.2 will help establish indigenous equipment for Russian safeguards. The initial review of Russian manufacturing capabilities for safeguards equipment has been completed and recommendations have been made. To this end, we are encouraging US vendors to collaborate with Russian institutes and have contracted with the All-Russia Research Institute of Automatics (VNIIA) and Aquila Technologies to fabricate a Russian Active-Well Coincidence Counter (AWCC) from US parts.