

**Roger Christensen**

**United States Air Force**

**2003**

**Nominee For**

**Secretary of Defense**

**Environmental Quality Award**

**Individual**

## 2003 SECRETARY OF DEFENSE ENVIRONMENTAL QUALITY AWARD FOR INDIVIDUAL EXCELLENCE

### MR. ROGER CHRISTENSEN

#### BACKGROUND

Roger Christensen distinguished himself as the Air Quality Program Manager for the 99th Civil Engineer Squadron, Environmental Management Flight, Compliance Element at Nellis Air Force Base (AFB), Nevada. He brilliantly managed the air quality program at both Nellis and the Nevada Test and Training Range (NTTR).

He is a graduate of Embry Riddle Aeronautical University and holds a Masters Degree in Public Administration. While an airman in the US Air Force, Mr. Christensen served in aircraft maintenance and quality assurance before attending Officers Training School. After his commissioning, he held positions in explosive ordnance disposal in the states and overseas.



Upon his retirement from the AF, Mr. Christensen managed a fuels distribution terminal and subsequently began working as a civil servant as an environmental protection specialist/physical scientist. He has managed the air program at Nellis since 2001 and instituted many positive changes that enhanced both the operational capabilities of regulated organizations and developed a

positive relationship with a multitude of state and federal agencies.

#### POSITION DESCRIPTION

Mr. Christensen's responsibilities include planning, coordinating and managing all aspects of the complex air quality program.



Nellis AFB is the “*Home of the Fighter Pilot*” and is located eight miles northeast of downtown Las Vegas in Clark County, Nevada. Nellis is a key member of the United States Air Force's Air Combat Command and the home of the Air Warfare Center that has the largest and most demanding advanced air combat training mission in the world. Nellis is also home to the premier USAF Thunderbird Air Demonstration Team.

All of these missions are conducted on 2.9 million acres of land and 12,000 square miles of airspace. The test range is a critical component of the overall Air Force mission.



Mr. Christensen ensures strict air quality and other standards are met throughout this vast area arising from unique situations involving sensitive operations. He ensures issues are addressed quickly, expertly and with an innovative approach. His outstanding professional knowledge and skill in environmental physical science practices, processes and techniques result in an extraordinary program. As science evolves, NTTR integrates changes. Mr. Christensen's expertise is frequently called upon to integrate both conventional and unconventional methods in all aspects of the environmental air quality program to maintain compliance and ensure monitoring is efficient and correct. He often combines a multitude of disparate and complex features surrounding monitoring, compliance and the development of acceptable solutions.

Mr. Christensen is a consummate problem solver and ingeniously modifies or extends standard techniques when required. He displays an outstanding level of integrity and knowledge which are essential to program effectiveness.

The diverse actions involved in air quality management include developing solutions, providing oversight and continuous evaluation of the program. His responsibilities include:

- researching and implementing solutions to problems encountered in achieving compliance with federal, state and local environmental air quality control regulations;
- overseeing preparation and updates of inventories and corrective measures to reduce pollutants emitted in air, water or land from the installation and operations;
- identifying deficiencies that constitute a health hazard to the installation or adjacent civilian communities;
- coordinating actions required for funding, designing, constructing and operating

equipment or facilities to correct deficiencies;

- preparing guidelines or instructions as required to ensure compliance with environmental air regulations; and
- evaluating potential pollution sources and initiating corrections required to prevent or counteract potential pollution and prepare contingency plans.

As Nellis' air quality manager, Mr. Christensen inspects and evaluates existing environmental equipment and systems for reliability, flexibility and maintainability. If deficiencies are identified, he systematically incorporates them into the infrastructure maintenance plan.



Innovation, initiative and knowledge are essential ingredients to a successful program...Mr. Christensen has it all. When previously established practices were not appropriate due to critical environmental conditions or the unique demands of the Nellis mission, Mr. Christensen identified and developed new methods or modified existing ones.

He expertly prepared cost estimates for maintenance, repairs, upgrades and replacements. This vital element of resource management is just one area where Mr. Christensen excels and draws upon his vast background in estimating, contracting and engineering.

As the sole individual responsible for each aspect of the administrative, financial and technical aspects of the air quality program and assigned projects, Mr. Christensen enthusiastically participates in public meetings and education programs as the US Air Force representative. He was handpicked to serve on and chair technical committees within the Air Force and throughout the southern Nevada region.

Mr. Christensen’s superb budgetary management of the installation air emissions program encompasses an average annual budget of \$500K per year. This program includes Title V and dust permits, air emission inventories and all air related projects. He diligently collaborates with an environmental protection specialist who assists with compliance media initiatives and he coordinates these efforts with three contract employees who also work on the air quality program.

In addition to the day-to-day operations, Mr. Christensen provides world-class quality assurance oversight on environmental protocols such as air quality and pest management for the billion-dollar Nellis range contract.

His unprecedented knowledge of the science involved in the areas of monitoring and compliance is always up-to-date and takes into consideration changing laws and regulations.

Mr. Christensen’s extraordinary project management skills, knowledge of emerging environmental technologies and experience in data information systems, result in a collaborative, congenial atmosphere where problems are solved in record time using innovative methods and state-of-the-art technical solutions.

Mr. Christensen’s impeccable credentials and can-do attitude garners ardent support of the quality improvement and environmental awareness programs.

## **AWARDS AND SERVICES**

Mr. Christensen’s tremendous efforts and accomplishments were recognized with the Air Force 2003 General Thomas D. White Environmental Quality Award for Individual Excellence.

Amongst stiff competition, his incredible qualifications, initiatives and end-results were recognized as the “best of the best.” Mr. Christensen’s exemplary program ensured monitoring and compliance were not just effective but outstanding and worthy of emulation throughout the Air Force. His innovative partnering approach region-wide had such positive effects in area-wide efforts to keep cities and the air clean through environmental excellence that they will last for generations to come. His contributions were not only lauded by the AF but throughout the region as well.

His award-winning style is nothing new however. In 1999 Mr. Christensen was named as the 99th Air Base Wing Environmental Management Employee of the Year.

He was also selected as the 99th Air Base Wing Environmental Management Employee of the Quarter for the period of January through March 1998.

These selections were based on a myriad of factors and achievements. Most notably, however, are his contributions to area-wide environmental efforts.



Mr. Christensen is an exceptional team player who serves as the installation representative for the Las Vegas Regional Clean Cities

Coalition (LVRCC). This coalition consists of federal, state and local agencies geared to expanding the use of alternatives to gasoline and diesel fuels. By encouraging the use of Alternative Fuel Vehicles (AFV), LVRCC helps enhance energy security and independence and environmental quality in the Las Vegas Valley including AF entities. LVRCC consists of nearly 40 stakeholder organizations. Since it was established in 1993, LVRCC increased the number of AFVs to more than 5,000 vehicles powered by electricity, ethanol, hydrogen, methanol, natural gas and propane.

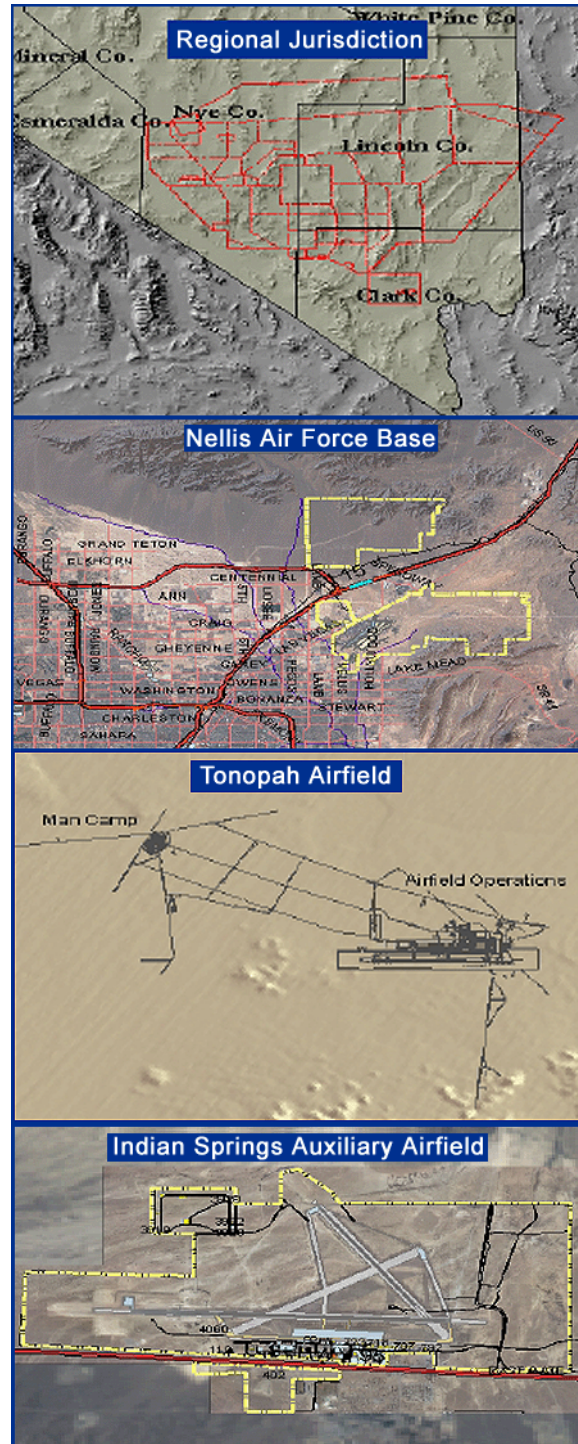
Mr. Christensen developed an outstanding professional relationship with both the State of Nevada and Clark County regulatory agencies. He flawlessly conveyed the official Air Force mission to permit writers, enforcement officers and management personnel, thereby reconciling theoretical differences between mission and regulatory requirements.

The Clark County Air Quality Management District Superintendent solicited Mr. Christensen's professional expertise in assisting the Clark County staff in interviewing applicants for key air quality positions having authority on Nellis AFB. His cooperation in this Clark County personnel matter is a compelling indication of the solidarity between Nellis Air Force Base and Clark County officials.

## ACCOMPLISHMENTS

Nellis Air Force Base and the NTTR joint mission is to manage advanced weapons tactics training and operational test, evaluation and tactics development for Air Force combat weapons systems. The mission, combined with the sheer volume of land and air space occupied by Nellis AFB, provides many environmental opportunities and challenges, particularly in the air protocol.

Nellis AFB and NTTR are subject to Title V permitting under The Clean Air Act (CAA).



The CAA is the federal law that sets limits on the quantity of pollutants that may be airborne anywhere in the United States. The federal Environmental Protection Agency (EPA) delegated enforcement authority to the individual states. In turn, the State of Nevada delegated the regulatory authority to Clark



County Department of Air Quality Management (CCDAQM) for all sources in Clark County. Nellis Air Force Base, along with components of the Southern Ranges on NTTR and Indian Springs Air Force Auxiliary Field (ISAFAF), are primarily regulated by the CCDAQM. The NTTR Northern Range is regulated by the Nevada Division of Environmental Protection (NDEP).

CCDAQM regulations are more stringent than Nevada regulations and require a more aggressive approach to mission sustainability. About 5,000 people move to Las Vegas monthly, making Las Vegas one of the fastest growing cities in the nation, thus making the challenges for the region even more monumental and challenging.

Mr. Christensen works closely with the CCDAQM and the NDEP ensuring Nellis' organizations and facilities remain in regulatory compliance and a cooperative atmosphere and working relationship exist between all entities.

#### *EMS Implementation*

Mr. Christensen spearheaded implementation of an Environmental Safety and Occupational Health Management System (ESOHMS) for the Nellis AFB air quality program. He developed detailed scientific spreadsheets that incorporate air quality and permit data and monitors the vast reporting requirements of both Nevada and Clark County. These comprehensive spreadsheets were incorporated into the Nellis ESOHMS web-based program. The data touches on many aspects of all four environmental pillars (compliance, conservation, restoration and pollution prevention) providing viable information necessary for environmental planning and cost controls, noise pollution abatement and decision-making. Data is now readily accessible to concerned government and military officials.

His dedication to communication, education, and problem solving drove his development of a web page outlining the requirements and accomplishments of the air quality program. This valuable Intranet tool is now an integral part of the solution set available to Nellis AFB leadership. It is used by wing leaders and planners in developing priorities for both present day operations as well as the future.

#### *Air Pollution Control*

Mr. Roger Christensen was instrumental in the Air Force mission continuing at vital Nevada ranges. His exemplary reputation, spirit of coordination and collaboration and credibility ensured new Nevada air emission regulations would not adversely affect the Nellis mission. While his actions occurred in today's environment, the results will be evident well into the future.

He expertly defined the mission, negotiated new regulatory language and led the way to integrating county regulations into a cohesive, workable guidance that excluded military training activities from overly restrictive dust management requirements. Mr. Christensen's knowledge of the Air Force mission and his ability to negotiate and solve problems were key to this collaborative agreement.

The CCDAQM and NDEP have diverse regulations that can be somewhat overwhelming, causing uncertainty and confusion. Along with this regulatory perplexity was the need to issue Title V permits for both Nellis and the NTTR. Title V permits were originally submitted in 1996 but had unfortunately reached an impasse in being granted.

Roger Christensen astutely negotiated issues without mission delays or serious setbacks to the Air Force or the NTTR. While the state identified 484 emission units, Mr. Christensen provided evidence that proved that only 56 of these required Title V permitting. This evidence, coupled with his knowledge and

background, convinced regulators that the other 428 units were insignificant emission sources such as gasoline dispensers, boilers, emergency generators and storage tanks. As a result, Mr. Christensen's intervention on behalf of national defense eliminated a

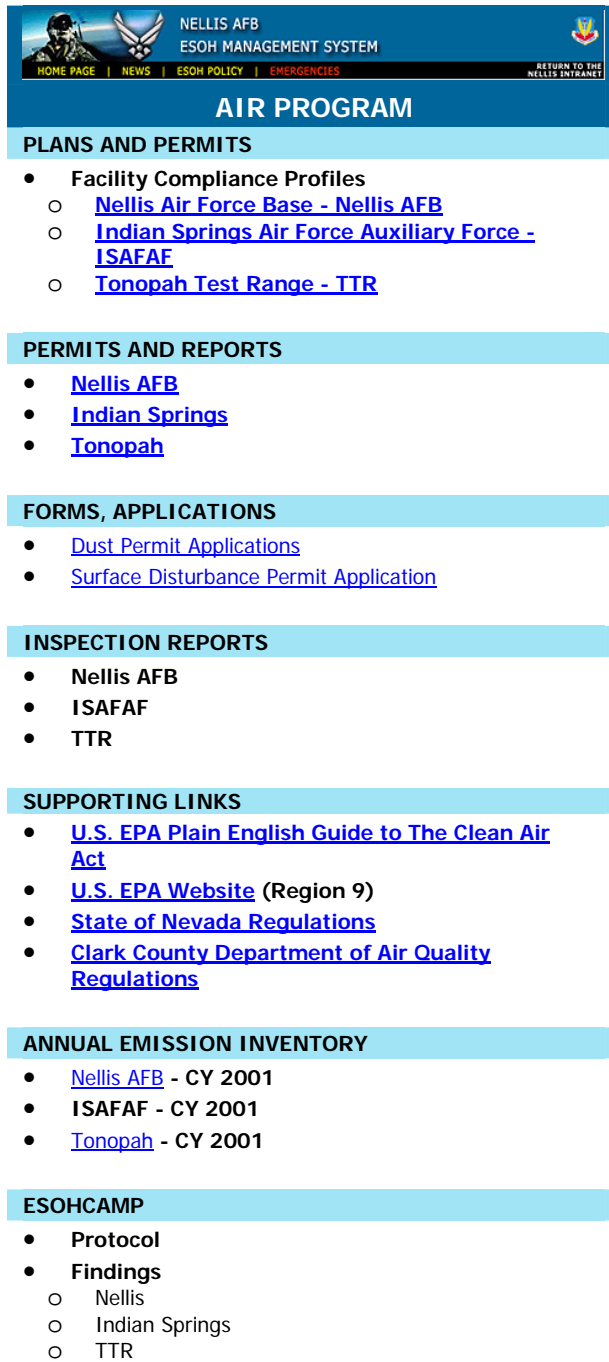
stumbling block and a risky potential for legal enforcement. At the same time, he continued to conscientiously apply the same dedication in enforcing air quality standards.

His strong leadership capabilities were prevalent as he taught county and state enforcement officers, as well as permit writers, about the Nellis and Air Force missions. The cohesive relationship he established resulted in an understanding of the mission as it relates to the crucial issuance of the Title V permit. He went the "extra mile" to ensure regulators understood the intricate nuances as well as impacts on wing activities. Mr. Christensen worked with regulators to develop viable timelines and practical goals and he overcame many obstacles throughout the permitting process.

His tireless efforts once again contributed greatly to Air Force mission success. The NTTR Title V permit was issued in January 2004. This was a significant accomplishment as other federal agencies in the state are still negotiating permits that were submitted after the Nellis and NTTR applications.

Mr. Roger Christensen sets precedents while saving time and money. The Hush House Jet Engine Test Facility is a major pollutant on Nellis AFB. Mr. Christensen negotiated with Clark County and the EPA Region 9 to exclude the Hush House from the Title V permit. This critical step enables Nellis to regress from a major source to a minor source that will ultimately eliminate the Title V permit, thereby reducing permit fees, operations costs and EPA oversight.

Mr. Christensen's dedication is pervasive and mission oriented. His tireless efforts with the United States Navy and Nevada regulators to exempt tactical diesel vehicles from mandated emission inventories saved \$75,000 and 150 man-hours annually and more importantly did not hamper mission requirements.



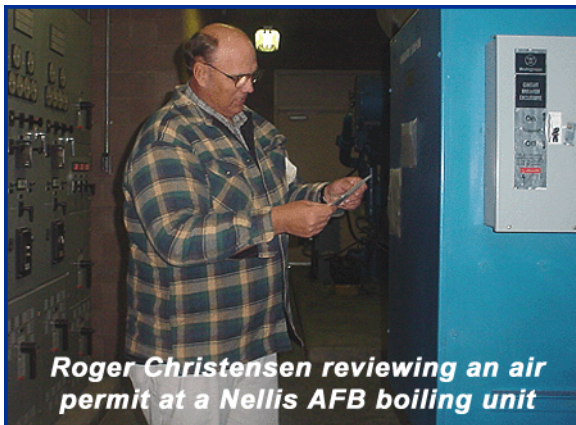
The screenshot shows the Nellis AFB ESOH Management System website. At the top, there is a navigation bar with links for HOME PAGE, NEWS, ESOH POLICY, EMERGENCIES, and a button to RETURN TO THE NELLIS INTRANET. Below this is the main title "AIR PROGRAM" and a sub-menu "PLANS AND PERMITS" which includes Facility Compliance Profiles with links to Nellis Air Force Base - Nellis AFB, Indian Springs Air Force Auxiliary Force - ISAFAF, and Tonopah Test Range - TTR. Other sub-menus include PERMITS AND REPORTS (links to Nellis AFB, Indian Springs, Tonopah), FORMS, APPLICATIONS (links to Dust Permit Applications, Surface Disturbance Permit Application), INSPECTION REPORTS (links to Nellis AFB, ISAFAF, TTR), SUPPORTING LINKS (links to U.S. EPA Plain English Guide to The Clean Air Act, U.S. EPA Website (Region 9), State of Nevada Regulations, Clark County Department of Air Quality Regulations), ANNUAL EMISSION INVENTORY (links to Nellis AFB - CY 2001, ISAFAF - CY 2001, Tonopah - CY 2001), and ESOHCAMP (links to Protocol, Findings with sub-links for Nellis, Indian Springs, TTR).

*Example of the detailed information available on the Nellis AFB ESOHMS air program web page.*

A natural problem solver, Mr. Christiansen identified more than 30 air permit deficiencies and took the initiative to consolidate them into one inclusive permit. This correction reduced regulatory burden, halted enforcement actions and produced an annual savings of \$35,000. He is a hands-on manager and leader, ensuring that every detail is addressed and problems are solved immediately.

His influence is far-reaching. He inspired the same kind of innovative attitude in his co-workers. The programs he touches are known throughout the base as being forerunners in exploring new systems and techniques while assuring mission success remains at the heart of daily business. Wing leadership looks to Mr. Christensen for new perspectives and ideas.

He is an expert in his field and instructs colleagues on air quality issues. He diligently mentors Nellis, NTTR and ISAFAF units in acquiring initial air permits and in updating existing permits. He also provides educational training to personnel on new sources of potential air emission sources. Mr. Christensen implemented a comprehensive training program in conjunction with the installation's First Team Airmen's Center. From May 2001 to October 2003, more than 1,000 new airmen were educated on Air Force environmental programs, policies and local regulations. This factor alone resulted in reduced potential for legal enforcement actions unfavorable to Nellis.



### *Water Pollution Control*

Mr. Christensen provided a thorough review of the spill prevention and response plan that included management, water conservation and drinking and ground water protection. He ensured water projects met air regulatory requirements providing exceptional support on the vapor recovery and water treatment system project.

### *Noise Pollution Control*

His knowledge is all encompassing. Mr. Christensen is an active member of the Nellis Readiness Sustainability Team. The team works on noise pollution issues involving the Nellis base and range and reports to the Nellis Environmental Leadership Council (ELC) for decision-making. Mr. Christensen expertly coordinated modification of equipment to reduce noise levels. He orchestrated a project to insulate boilers thereby drastically reducing decibel levels.

### *Radiation Pollution Control*

Roger Christensen's insight resulted in his assignment as a technical advisor to the ELC on plutonium-contaminated sites located on the Nellis range, providing tangible recommendations on management and control to Nellis leadership. He paved the way for the removal of depleted uranium targets at Leach Lake in Fort Irwin, California. Nellis uses the air to ground support at Fort Irwin for joint Army/Air Force training. Mr. Christensen developed a safe process that provided removal of targets from Leach Lake, ensuring compliance with the Nuclear Regulatory Commission (NRC) who issued a permit for storage of depleted uranium targets and release of emissions.

### *Waste Management/Resource Recovery*

Involved in every aspect of environmental considerations, Roger Christensen minimized air emissions from the Nellis AFB construction landfill by resourcefully devising



a project to pave access to the Area II landfill. Daily dust emissions, a predominant regulatory problem in the Las Vegas Valley, were drastically reduced.

***Pest Management***

The entire base population respects Mr. Christensen’s knowledge and expertise and he is constantly sought out to assess and provide recommendations on a variety of environmental issues. He provided a thorough review of the Pesticide Management Facility during internal and external Environmental, Safety and Occupational Health Compliance Assessment and Management Program (ESOHCAMPs). His intuitive analysis and suggestions were incorporated into the overall program.



He researched and analyzed the potential application of herbicides and pesticides that reduced release of chemicals into the atmosphere, thereby providing better adhesion to sprayed materials with minimal wind drift. Although not measurable, the improvement in air quality was significant.

**ENVIRONMENTAL RESEARCH AND EDUCATION**

There are few areas on Nellis Air Force Base and throughout southern Nevada that have not been direct beneficiaries of Mr. Christensen’s outstanding contributions. His dedication

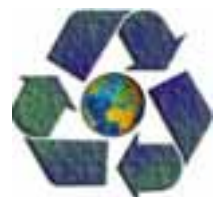
ensured critical missions at Nellis could be undertaken without regulatory impediments. Nellis AFB’s longstanding tradition of training the world’s best combat air forces will continue to be accomplished due to the support and high standards of excellence that Mr. Christensen exemplifies.

Spreading his knowledge and experience throughout the base, Mr. Christensen provided expert input to the Nellis AFB public affairs program on air issues and the importance of air quality.

Concerned for the health and welfare of the Nellis workforce, he spearheaded an effort to renovate paint booths with the most modern equipment. This endeavor not only resulted in better health and safety for operating personnel but also improved emission controls that will be used to shrink a major source to a synthetic minor source. This project, along with other capital improvement projects, reclassifying operations under different SIC codes and taking limits on levels of production, will help eliminate the Title V permitting burden.

Mr. Christensen constantly seeks innovative solutions to technical problems. He researched and acquired eight zero-emission electric cars for testing on Nellis AFB during an air non-attainment pollution period. These efforts were noted and lauded by both Clark County and Nevada regulators. He also developed a multi-year purchase program for 135 electric vehicles. In addition, he expanded the compressed natural gas alternate fuel program. He developed and implemented a utilization-tracking program for 218 units and his resourceful initiative reduced the use of unleaded gasoline by five percent.

Dedicated to environmental excellence while supporting the mission, Mr. Christensen contributed to the installation’s America Recycles Day promotional



campaign by assisting in developing and distributing more than 1,200 recycling informational packets to Nellis military housing residents.

**Environmental Compliance Assessment and Management Program**

At Nellis AFB, a critical component of environmental compliance is annual ESOHCAMP assessments. Roger Christensen was handpicked as an ESOHCAMP team member because of his exceptional professional knowledge, varied experience and outstanding rapport with other personnel. He conducts audits on various environmental protocols including pest management and air quality for both the Nellis base and range. In addition, he is the focal point for all air emission findings during external ESOHCAMP’s. Lessons learned are tied into the Nellis ESOHMS database to support sustained base and range operations.

**National Environmental Policy Act (Planning, Analysis, Implementation)**

Roger Christensen is pivotal in providing thorough planning and analysis on all NEPA issues. He provided viable data to other environmental program managers on existing and proposed facilities to ensure compliance with air quality and NEPA regulations on federal lands and for DoD assets in Nevada and California. He meticulously worked on the FA-22 beddown at Nellis AFB, researching and conducting conformity



analysis to ensure the correct air permit was obtained allowing the bed down to remain on schedule.

**Compliance with EO 12898**

Mr. Christensen served as the focal point on air issues ensuring compliance with Executive Order 12898, environmental justice analysis.

Environmental justice is used in all air quality program policies and actions. His systematic and thorough review of environmental impact assessments for the base and range ensured equal treatment of all individuals, groups or local communities regardless of race, ethnicity or economic status. He analyzed and incorporated requirements into environmental improvement projects ensuring mission sustainability while reducing environmental impacts on the local urban and rural communities.

**COMMITTED TO EXCELLENCE**

Mr. Roger Christensen exemplifies tremendous integrity, outstanding knowledge and dedication to the mission and the environment. His accomplishments have quietly ensured that the environment in and around Nellis Air Force Base will be protected, preserved and restored while the “Home of the Fighter Pilot” continues its legacy.



His incredible contributions enable quality training and testing at the test ranges continues uninterrupted while ensuring the quality of the air for southern Nevada is preserved. His dedication to duty is unsurpassed.