

extinguishers in new light trucks would give good Samaritans the ability to slow a fire.

FEMA further claimed that the Federal Motor Carrier Safety Administration (FMCSA) regulation requiring fire extinguishers in large trucks and buses engaged in interstate commerce, and the United States Coast Guard regulation requiring portable fire extinguishers in any boat with an inboard engine or permanently installed fuel tank, sets precedents to require portable fire extinguishers in new light trucks. FEMA stated the FMCSA regulation was brought about because it allows the driver to extinguish an electrical, tire, gasoline or cargo fire, and the United States Coast Guard regulation was issued because rescue personnel are not able to respond quickly enough if the fire occurs in a boat offshore.

FEMA provided 163 media reports of portable fire extinguishers used to extinguish or slow fires in motor vehicles. FEMA stated that according to the reports, more than 70 individuals were saved through the use of portable fire extinguishers. FEMA further stated that the vast majority of instances where portable fire extinguishers were used at the scene of an automobile accident were because of good Samaritans who had fire extinguishers in their vehicles, or because of police officers and truck drivers that are required to have portable fire extinguishers in their vehicles. FEMA claims that increasing the supply of portable fire extinguishers would greatly increase the safety of drivers and occupants of all vehicles on America's roads, not just light trucks.

FEMA further contended that requiring light trucks to be equipped with portable fire extinguishers would not be an onerous requirement. FEMA stated that many light trucks sold in the United States are engineered to be easily equipped because many countries throughout the world already require fire extinguishers in all vehicles. Austria, Belgium, the Russian Federation, Greece, Poland, Estonia, Mexico, Columbia, Latvia and Lithuania were cited as already requiring portable fire extinguishers in all motor vehicles, with Denmark, Germany, Italy, Portugal, Switzerland, Sweden and the Netherlands strongly recommending drivers to so equip their automobiles.

FEMA estimated the cost to equip new light trucks with fire extinguishers to be relatively minor, and that there would be a significant number of lives saved.

### Analysis of the Petitioner's Argument

As indicated in the petition, crash related fires in motor vehicles represent only a small proportion of the total vehicle fires. An analysis of crash related fires in motor vehicles are reported annually by *Traffic Safety Facts*, and show that there is an average of 15,000 crash related motor vehicle fires per year with about seventy percent occurring in passenger cars and light trucks. Also, as indicated in the petition, there are many motor vehicle fires that are not crash related. The National Fire Protection Association report, "*Fire Loss in the United States During 2002*," determined that there were about 329,000 fires in motor vehicles and 1,700 injuries to civilians in highway vehicle fires. However, FEMA provided no data to demonstrate that requiring portable fire extinguishers in new light trucks would reduce the number of injuries or fatalities associated with those fires. The agency is not convinced by FEMA's argument that increasing the number of fire extinguishers on the road would reduce the number of injuries or fatalities. The United States Fire Administration (USFA), in the Department of Homeland Security, Federal Emergency Management Agency, data show that sixty-four percent of the fire deaths are a result of the collision. The data also show that forty-five percent of persons injured in vehicle fires were injured while attempting to control the fire, twenty-one percent were injured trying to escape the blaze, and only eleven percent of the injured were incapacitated prior to ignition.<sup>4</sup>

The agency is concerned that if portable fire extinguishers were required as standard equipment in light duty trucks, there could be an increase in the number of injuries or fatalities, because not all motorists are trained to use portable fire extinguishers to put out automobile fires. Many of the media reports provided by FEMA showed that the users of the portable fire extinguishers were people who would have had more knowledge of fire safety and the use of portable fire extinguishers than average motorists, such as police officers or drivers of commercial vehicles.

The agency is concerned that making portable fire extinguishers available in all light duty trucks could increase the number of injuries and fatalities. The data from USFA clearly show that forty-five percent of the persons injured in vehicle fires were injured while

attempting to control the fire. While good Samaritans may have sufficient training and/or knowledge to assist in extinguishing a vehicle fire, there is no evidence to suggest that the general driving public could safely extinguish such fires without exposing themselves to a greater risk than the potential benefit, even if the fire extinguishers were properly maintained. Firefighters and other emergency responders have training and are better prepared to safely extinguish such fires. As such, the available data do not show that requiring portable fire extinguishers in new light duty trucks, as petitioned by FEMA, would reduce the number of vehicle fire related deaths and injuries.

### Decision To Deny the Petition

In accordance with 49 CFR part 552, this completes the agency's review of the petition for rulemaking. Accordingly, the petition for rulemaking is denied for the reasons stated above.

**Authority:** 49 U.S.C. 322, 30111, 30115, 30117, and 30162; delegation of authority at 49 CFR 1.50 and 501.8.

Issued on: May 3, 2005.

**Stephen R. Kratzke,**

*Associate Administrator for Rulemaking.*

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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 20

RIN 1018-AT87

#### Migratory Bird Hunting; Approval of Iron-Tungsten-Nickel Shot as Nontoxic for Hunting Waterfowl and Coots

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule, availability of Draft Environmental Assessment.

**SUMMARY:** The U.S. Fish and Wildlife Service (we, us, or USFWS) proposes to approve shot formulated of 62 percent iron, 25 percent tungsten, and 13 percent nickel as nontoxic for waterfowl and coot hunting in the United States. We assessed possible toxicity effects of the Iron-Tungsten-Nickel (ITN) shot, and have determined that it is not a threat to wildlife or their habitats, and that further testing of ITN shot is not necessary. We have concluded that because all of the metals in ITN shot type have been approved in higher concentrations in other nontoxic shot types and in ITN shot are very unlikely to adversely affect fish, wildlife, their

<sup>4</sup> U.S. Fire Administration, *Topical Fire Research Series*, Volume 2, Issue 4 July 2001 (Rev. March 2002).

habitats, or the human environment, we do not need to prepare an Environmental Assessment for this action. We believe that the toxicity risks from ITN shot are small.

This rule also corrects the formulation of Tungsten-Tin-Bismuth shot. We inadvertently left the iron in the formulation out of our August 9, 2004, approval of the shot type (69 FR 48163).

**DATES:** Send comments on this proposal by June 6, 2005.

**ADDRESSES:** You may submit comments, identified by RIN 1018-AT87, by any of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the instructions for submitting comments.

- *Agency Web Site:* <http://migratorybirds.fws.gov>. Follow the links to submit a comment.

- *E-mail address for comments:* [George\\_T\\_Allen@fws.gov](mailto:George_T_Allen@fws.gov). Include "RIN 1018-AT87" in the subject line of the message. Please submit electronic comments as text files; do not use file compression or any special formatting.

- *Fax:* 703-358-2217.

- *Mail:* Chief, Division of Migratory Bird Management, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Mail Stop MBSP-4107, Arlington, Virginia 22203-1610.

- *Hand Delivery:* Division of Migratory Bird Management, U.S. Fish and Wildlife Service, 4501 North Fairfax Drive, Room 4091, Arlington, Virginia 22203-1610.

We will not accept anonymous comments. Comments will become part of the Administrative Record for the review of the application. You may inspect comments at the mailing address above during normal business hours.

The Draft Environmental Assessment for approval of ITN shot is available from the Division of Migratory Bird Management, U.S. Fish and Wildlife Service, 4501 North Fairfax Drive, Room 4091, Arlington, Virginia 22203-1610. You may call 703-358-1825 to request a copy of the Draft Environmental Assessment.

The complete file for this rule is available, by appointment, during normal business hours at the same address. You may call 703-358-1825 to make an appointment to view the files.

**FOR FURTHER INFORMATION CONTACT:** Dr. George T. Allen, Division of Migratory Bird Management, 703-358-1714.

**SUPPLEMENTARY INFORMATION:**

**Background**

The Migratory Bird Treaty Act of 1918 (Act) (16 U.S.C. 703-711) and the Fish and Wildlife Improvement Act of 1978

(16 U.S.C. 712) implement migratory bird treaties between the United States and Great Britain for Canada (1916 and 1996 as amended), Mexico (1936 and 1972 as amended), Japan (1972 and 1974 as amended), and Russia (then the Soviet Union, 1978). These treaties protect certain migratory birds from take, except as permitted under the Acts. The Acts authorize the Secretary of the Interior to regulate take of migratory birds in the United States. Under this authority, the U.S. Fish and Wildlife Service controls the hunting of migratory game birds through regulations in 50 CFR part 20.

Deposition of toxic shot and release of toxic shot components in waterfowl hunting locations are potentially harmful to many organisms. Research has shown that ingested spent lead shot causes significant mortality in migratory birds. Since the mid-1970s, we have sought to identify shot types that do not pose significant toxicity hazards to migratory birds or other wildlife. We addressed the issue of lead poisoning in waterfowl in an Environmental Impact Statement in 1976, and again in a 1986 supplemental EIS. The 1986 document provided the scientific justification for a ban on the use of lead shot and the subsequent approval of steel shot for hunting waterfowl and coots that began that year, with a complete ban of lead for waterfowl and coot hunting in 1991. We have continued to consider other potential candidates for approval as nontoxic shot. We are obligated to review applications for approval of alternative shot types as nontoxic for hunting waterfowl and coots.

We have received an application from ENVIRON-Metal, Inc. of Sweet Home, Oregon, for approval of Iron-Tungsten-Nickel shot formulated as 62 percent iron, 25 percent tungsten, and 13 percent nickel by weight for waterfowl and coot hunting. We have reviewed the shot under the criteria in Tier 1 of the revised nontoxic shot approval procedures contained in 50 CFR 20.134 for permanent approval of shot as nontoxic for hunting waterfowl and coots. We propose to amend 50 CFR 20.21 (j) to add ITN shot to the list of the approved types of shot for waterfowl and coot hunting.

The taxonomic family Anatidae, principally subfamily Anatinae (ducks) and their habitats, comprise the affected environment. Waterfowl habitats and populations in North America this year were described by the U.S. Fish and Wildlife Service (2004). In the Breeding Population and Habitat Survey traditional survey area (strata 1-18, 20-50, and 75-77), the total-duck population estimate was  $32.2 \pm 0.6 (\pm 1$

standard error) million birds, 11% below last year's estimate of  $36.2 \pm 0.7$  million birds and 3% below the 1955-2003 long-term average. Mallards (*Anas platyrhynchos*) numbered  $7.4 \pm 0.3$  million, similar to last year's estimate of  $7.9 \pm 0.3$  million birds and to the long-term average. Blue-winged teal (*A. discors*) numbered  $4.1 \pm 0.2$  million, 26% below last year's estimate of  $5.5 \pm 0.3$  million, and 10% below the long-term average. Among other duck species, northern shovelers (*A. clypeata*,  $2.8 \pm 0.2$  million) and American wigeon (*A. americana*,  $2.0 \pm 0.1$  million) were both 22% below their 2003 estimates. As in 2003, gadwall (*A. strepera*,  $2.6 \pm 0.2$  million, +56%), green winged teal (*A. crecca*,  $2.5 \pm 0.1$  million, +33%), and northern shovelers (+32%) were above their long-term averages. Northern pintails (*A. acuta*,  $2.2 \pm 0.2$  million, -48%), scaup (*Aythya affinis* and *A. marila*,  $3.8 \pm 0.2$  million, -27%), and American wigeon (-25%) were well below their long-term averages in 2004.

Total May ponds in Prairie Canada and the north-central U.S. were  $3.9 \pm 0.2$  million, or 24% lower than last year and 19% below the long-term average. The projected mallard fall flight (which is fundamental for setting waterfowl hunting regulations) was  $9.4 \pm 0.1$  million birds, compared to the estimate of  $10.3 \pm 0.1$  million in 2003.

The 2004 total-duck population estimate for the eastern survey area (strata 51-56 and 62-69) was  $3.9 \pm 0.3$  million birds. This estimate was similar to last year's estimate of  $3.6 \pm 0.3$  million birds and to the 1996-2003 average. Individual species estimates for this area were similar to 2003 estimates and to 1996-2003 averages, with the exception of American wigeon ( $0.1 \pm 0.1$  million) and goldeneyes (*Bucephala clangula* and *B. islandica*,  $0.4 \pm 0.1$  million), which were 61% and 42% below their 1996-2003 averages, respectively, and ring-necked ducks (*Aythya collaris*,  $0.7 \pm 0.2$  million), for which the estimate was up 67% from 2003.

**Other Biota**

Waterfowl hunting occurs in habitats used by many taxa of migratory birds, as well as by aquatic invertebrates, amphibians, and some mammals. Fish also may be found in many hunting locations.

**Shot Formulation and Production**

Iron-Tungsten-Nickel shot is an alloy of 62% iron, 25% tungsten, and 13% nickel. Its density is about 9 grams/cm<sup>3</sup>. The shot has no coating, nor is it chemically or physically altered when fired from a shotgun. Neither

manufacturing the shot nor firing shotshells containing the shot will alter the metals or increase their susceptibility to dissolving in the environment.

ENVIRON-Metal estimates that the volume of ITN shot for use in hunting migratory birds in the United States will be approximately 200,000 pounds (90,719 kilograms) during the first year of sale, and perhaps 500,000 pounds (227,000 kg) per year thereafter.

#### **Environmental Fate of the Metals in ITN Shot**

Elemental tungsten and iron are virtually insoluble in water, and therefore do not weather and degrade in the environment. Tungsten is stable in acids and does not easily form compounds with other substances. Preferential uptake by plants in acidic soil suggests uptake of tungsten when it has formed compounds with other substances rather than when it is in its elemental form (Kabata-Pendias and Pendias 1984).

Nickel is usually found at less than 1 part per billion (ppb) in fresh waters in locations unaffected by human activities. Pure nickel is not soluble in water. Free nickel may be part of chemical reactions, such as sorption, precipitation, and complexation. Reactions of nickel with anions are unlikely. Complexation with organic agents is poorly understood (USEPA 1980). Water hardness is the dominant factor governing nickel effects on biota (Stokes 1988).

#### **Possible Environmental Concentrations**

Calculation of the estimated environmental concentration (EEC) of a candidate shot in a terrestrial ecosystem is based on 69,000 shot per hectare (50 CFR 20.134). For ITN shot, if the shot are completely dissolved in dry, porous soil, the EEC for iron is 14.55 g/m<sup>3</sup>, or 11.19 parts per million (ppm). Iron is naturally widespread, comprising approximately 2% of the composition of soils and sediments in the U.S. The EEC for iron from ITN shot is much lower than that level.

Tungsten is rare (1.5 ppm in the earth's crust), and is never found free in nature. The EEC for tungsten in soil is 5.92 g/m<sup>3</sup>, or 4.55 ppm. This is below the EEC for several other tungsten-based shot types that we have previously approved. We are not aware of any problems associated with those shot types. The U.S. Environmental Protection Agency (USEPA) does not have a biosolids application limit for tungsten.

The EEC for nickel in ITN shot in soils is 3.08 g/m<sup>3</sup>, or 4.55 ppm. This

concentration is far below the USEPA biosolids application limit of 420 ppm (USEPA 2000).

The EEC for water assumes that 69,000 #4 shot are completely dissolved in 1 hectare of water 1 foot (30.48 cm) deep. For ITN shot, the EEC for iron in water is 2.39 milligrams per liter (mg/l). The USEPA chronic water quality criterion for iron in fresh water is 1 mg/l.

The EEC for tungsten from ITN shot is 0.97 mg/l. The USEPA has set no acute or chronic criteria for tungsten in aquatic systems.

The aquatic EEC for nickel from ITN shot is 505 mcg/l. The USEPA (1980) acute criterion for nickel in fresh water is 1400 mcg/l; the chronic criterion is 160 mcg/l. The acute and chronic criteria for salt water are 75 and 8.3 mcg/l, respectively.

#### **Effects of Iron-Tungsten-Nickel Shot**

Iron is an essential nutrient, so reported iron toxicosis in mammals is primarily a phenomenon of overdosing of livestock. Maximum recommended dietary levels of iron range from 500 ppm for sheep to 3,000 ppm for pigs (National Research Council [NRC] 1980). Chickens require at least 55 ppm iron in the diet (Morck and Austic 1981). Chickens fed 1,600 ppm iron in an adequate diet displayed no ill effects (McGhee *et al.* 1965). Turkey poult fed 440 ppm in the diet suffered no adverse effects. The tests in which eight #4 tungsten-iron shot were administered to each mallard in a toxicity study indicated that the 45% iron content of the shot had no adverse effects on the test animals (Kelly *et al.* 1998).

Tungsten may be substituted for molybdenum in enzymes in mammals. Ingested tungsten salts reduce growth, and can cause diarrhea, coma, and death in mammals (*e.g.* Bursian *et al.* 1996, Cohen *et al.* 1973, Karantassis 1924, Kinard and Van de Erve 1941, National Research Council 1980, Pham-Huu-Chanh 1965), but elemental tungsten is virtually insoluble and therefore essentially nontoxic. Tungsten powder added to the food of young rats at 2, 5, and 10% by mass for 70 days did not affect health or growth (Sax and Lewis 1989). A dietary concentration of 94 parts ppm did not reduce weight gain in growing rats (Wei *et al.* 1987). Exposure to pure tungsten through oral, inhalation, or dermal pathways is not reported to cause any health effects (Sittig 1991).

Tungsten salts are toxic to mammals. Lifetime exposure to 5 ppm tungsten as sodium tungstate in drinking water produced no discernible adverse effects in rats (Schroeder and Mitchener 1975).

At 100 ppm tungsten as sodium tungstate in drinking water, rats had decreased enzyme activity after 21 days (Cohen *et al.* 1973).

Kraabel *et al.* (1996) surgically embedded tungsten-bismuth-tin shot in the pectoralis muscles of ducks to simulate wounding by gunfire and to test for toxic effects of the shot. They found that the shot neither produced toxic effects nor induced adverse systemic effects in the ducks during the 8-week period of their study.

Chickens given a complete diet showed no adverse effects of 250 ppm sodium tungstate administered for 10 days in the diet. However, 500 ppm in the diet reduced xanthine oxidase activity and reduced growth of day-old chicks (Teekell and Watts 1959). Adult hens had reduced egg production and egg weight on a diet containing 1,000 ppm tungsten (Nell *et al.* 1981). Ecological Planning and Toxicology (1999) concluded that the No Observed Adverse Effect Level for tungsten for chickens should be 250 ppm in the diet; the Lowest Observed Adverse Effect Level should be 500 ppm. Kelly *et al.* (1998) demonstrated no adverse effects on mallards dosed with tungsten-iron or tungsten-polymer shot according to nontoxic shot test protocols.

Ringelman *et al.* (1993) conducted a 32-day acute toxicity study which involved dosing game-farm mallards with a shot alloy of 39% tungsten, 44.5% bismuth, and 16.5% tin (TBT shot) by weight, respectively. All the test birds survived, showed normal behavior, and suffered no tissue toxicity or damage. Kraabel *et al.* (1996) determined that imbedded tungsten-bismuth-tin shot neither produced toxic effects nor induced any adverse systemic effects on the health of ducks.

Nickel is a dietary requirement of mammals, with necessary consumption set at 50 to 80 ppb for the rat and chick (Nielsen and Sandstead 1974). Though it is necessary for some enzymes, nickel can compete with calcium, magnesium, and zinc for binding sites on many enzymes.

Water-soluble nickel salts are poorly absorbed if ingested by rats (Nieboer *et al.* 1988). Nickel carbonate caused no treatment effects in rats fed 1,000 ppm for 3 to 4 months (Phatak and Patwardhan 1952). Rats fed 1,000 ppm nickel sulfate for 2 years showed reduced body and liver weights, an increase in the number of stillborn pups, and decrease in weaning weights through three generations (Ambrose *et al.* 1976). Nickel chloride was even more toxic; 1,000 ppm fed to young rats caused weight loss in 13 days (Schnegg and Kirchgessner 1976).

Soluble nickel salts are very toxic to mammals, with an oral LD<sub>50</sub> of 136 mg/kg in mice, and 350 mg/kg in rats (Fairchild *et al.* 1977). Nickel catalyst (finely divided nickel in vegetable oil) fed to young rats at 250 ppm for 16 months, however, produced no detrimental effects (Phatak and Patwardhan 1952).

In chicks from hatching to 4 weeks of age, 300 ppm nickel as nickel carbonate or nickel acetate in the diet produced no observed adverse effects, but concentrations of 500 ppm or more reduced growth (Weber and Reid 1968). A diet containing 200 ppm nickel as nickel sulfate had no observed effects on mallard ducklings from 1 to 90 days of age. Diets of 800 ppm or more caused significant changes in physical condition of the ducklings (Cain and Pafford 1981). Eastin and O'Shea (1981) observed no apparent significant changes in pairs of breeding mallards fed diets containing up to 800 ppm nickel as nickel sulfate for 90 days. Mallard ducklings fed 1,200 ppm nickel as nickel sulfate from one to 90 days of age experienced reduced growth rates, tremors, paresis, and death (71% within 60 days) (Cain and Pafford 1981). Weights of ducklings receiving 200 and 800 ppm nickel were not significantly different than controls, but the humerus weight/length ratio, a measure of bone density, was significantly lower than controls among females in the 800 ppm group and all birds in the 1,200 ppm group. There was no mortality in the 200 and 800 ppm groups. Assuming a mean daily consumption of 128 g per bird (Heinz 1979), the 800 ppm treatment group would have consumed 102 mg nickel each day and 9.2 g nickel during the course of the 90-day study. In a Tier 2 dosing study under the regulations governing approval of nontoxic shot, mallard ducks birds would each be given eight number 4 ITN shot (each containing 0.02206 g of nickel) during the study. A duck would be exposed to 0.176 g of nickel during the study if the nickel were completely dissolved. This is much less than the nickel exposure experienced by the mallards in the Eastin and O'Shea (1981) study.

Toxicity of nickel to aquatic organisms is dependent upon water hardness, pH, and organic content, as well as other minor environmental parameters (Allen and Hansen 1996). In soft water, as few as 7 ppb may be acutely toxic to fish fry, but in harder waters toxicity thresholds may be an order of magnitude higher (Stokes 1988). General toxicity ranges for aquatic organisms are as variable, with an acute toxicity of as low as 82 mcg/

l for some oligochaetes to 138,000 mcg/l for some gastropods; chronic toxicity values range from fewer than 100 mcg/l for some green algae to 10,000 mcg/l for filamentous algae (Stokes 1988).

The freshwater criterion maximum concentration is dependent on hardness. For a water body with hardness of 50 mg/l (generally associated with highly oligotrophic systems that would not support large numbers of waterfowl), this results in a criterion of 1,400 mcg/l. However, because early fish life stages are more sensitive to nickel, the freshwater chronic criterion is 160 mcg/l at a hardness of 50 mg/l (USEPA 1986).

The aquatic EEC for nickel from ITN shot is 505 mcg/l. The USEPA (1980) acute criterion for nickel in fresh water is 1400 mcg/l; the chronic criterion is 160 mcg/l. The acute and chronic criteria for salt water are 75 and 8.3 mcg/l, respectively. Based on the EEC, the maximum release of nickel from ITN shot would be well below the fresh water acute criterion for protection of aquatic life. The EEC exceeds the chronic criterion for fresh water and both acute and chronic values for seawater. However, ENVIRON-Metal reported that corrosion studies recently performed by an independent laboratory show that the corrosion rate for ITN shot is essentially equivalent to that of common steel, which is roughly linear with exposure time. Assuming that the rate of loss in the corrosion study continued, ITN shot would release about 11% of the calculated EEC per year; or about 4% of the acute water quality criterion and 35% of the chronic criterion for nickel in fresh water. After accounting for the dissolution of the shot, the EEC would be below the chronic criterion for salt water, but still about 7 times the acute criterion. However, the 11% dissolution would occur over a full year. Deposition of ITN shot in salt water environments would occur only during the hunting season, so worst-case nickel concentrations would be well below the chronic criterion. In addition, in most settings, shot deposition is far below that upon which the EEC is based.

Based on the information provided about ITN shot provided to us, we have little concern for the organisms from ingestion of ITN shot or from dissolution of the shot in aquatic settings.

We have previously approved as nontoxic other shot types that contain tungsten, iron, and nickel. Previous assessments of tungsten-containing alloys indicated that neither the tungsten nor the iron in ITN shot should be of concern in terrestrial or aquatic systems. The release of iron from the

shot would be insignificant in natural settings. Reviews of past studies for approvals of other tungsten-alloy nontoxic shot types also support the idea that ingestion of ITN shot will not cause harm to birds or mammals.

#### Impacts of Approval of ITN Shot as Nontoxic

The status quo would be maintained by not authorizing use of ITN shot for hunting waterfowl and coots. By regulation, 10 other nontoxic shot types are authorized for use by waterfowl and coot hunters. Because these shot types are nontoxic to migratory birds, using only those shot types would have no adverse impact on waterfowl and their habitats.

Based on past test results of shot types containing the metals in ITN shot, we believe it too is nontoxic to waterfowl, other biota, and their habitats. Furnishing another approved nontoxic shot will likely result in a minor positive long-term impact on waterfowl and wetland habitats. Approval of ITN shot as nontoxic would have a positive impact on the waterfowl resource.

The impact on endangered and threatened species of approval of the shot will be small but positive. We obtain a biological opinion pursuant to Section 7 of the Endangered Species Act prior to establishing the seasonal hunting regulations. The hunting regulations promulgated as a result of this consultation remove and alleviate chances of conflict between migratory bird hunting and endangered and threatened species.

Our consultations do not address take resulting from noncompliance. Indeed, a factor considered when we developed the regulations banning the use of lead for migratory waterfowl hunting was the impact of lead on endangered and threatened species. Hunter failures to comply with the ban on lead for waterfowl and coot hunting are of concern to us. We believe noncompliance is of some concern, but failure to approve ITN shot as nontoxic would have only a small negative impact on the resource.

The impact of approval of ITN shot on endangered and threatened species is similar to that described for waterfowl. In the short- and long-term, approval would provide a positive impact on endangered and threatened species because all indications are that ITN shot is nontoxic. Also, as an alternative shot, it will further discourage the use of lead during waterfowl hunting and perhaps extend to upland game.

Approval of ITN shot as nontoxic would have a short-term positive impact on ecosystems. Some hunters still

shooting lead shot might switch to ITN shot. Approval of an additional nontoxic shot type will result in positive long-term impact on ecosystems.

### Cumulative Impacts

We foresee no negative cumulative impacts of approval of ITN shot for waterfowl hunting. Approval of an additional nontoxic shot type should help to further reduce the negative impacts of the use of lead shot for hunting waterfowl and coots. We believe the impacts of approval of ITN shot for waterfowl hunting should be positive both in the United States and elsewhere.

### Nontoxic Shot Approval

The first condition for nontoxic shot approval is toxicity testing. Based on the results of the toxicological reports and the toxicity tests, we preliminarily conclude that ITN shot does not pose a significant danger to migratory birds, other wildlife, or their habitats.

The second condition for approval is testing for residual lead levels. Any shot with a lead level of 1% or more will be illegal. We determined that the maximum environmentally-acceptable level of lead in shot is 1%, and incorporated this requirement in the nontoxic shot approval process we published in December 1997 (62 FR 63608). International Nontoxic Composites, Inc. has documented that ITN shot meets this requirement.

The third condition for approval involves enforcement. In 1995 (60 FR 43314), we stated that approval of any nontoxic shot would be contingent upon the development and availability of a noninvasive field testing device. This requirement was incorporated in the nontoxic shot approval process. ITN shotshells can be drawn to a magnet as a simple field detection method.

For these reasons, and in accordance with 50 CFR 20.134, we propose to approve Iron-Tungsten-Nickel shot as nontoxic for migratory bird hunting, and propose to amend 50 CFR 20.21(j) accordingly. This decision is based on data about the components of this shot, assessment of concentrations in aquatic settings, and assessment of the environmental effects of the shot. Those results indicate no likely deleterious effects of ITN shot to ecosystems or when ingested by waterfowl. Earlier testing of shot types containing tungsten and/or tin and/or iron indicated no environmental problems due to those metals in nontoxic shot. We do not believe the nickel in ITN shot will pose a significant environmental hazard, and

we propose to approve ITN shot with no further testing.

### References

- Allen, H. E. and D. J. Hansen. 1996. The importance of trace metal speciation to water quality criteria. *Water Environment Research* 68:42–54.
- Ambrose, P., P. S. Larson, J. F. Borzelleca, and G. R. Hennigar, Jr. 1976. Long term toxicologic assessment of nickel in rats and dogs. *Journal of Food Science and Technology* 13:181–187.
- Bursian, S. J., M. E. Kelly, R. J. Aulerich, D.C. Powell, and S. Fitzgerald. 1996. Thirty-day dosing test to assess the toxicity of tungsten-polymer shot in game-farm mallards. Report to Federal Cartridge Company.
- Cain, B. W. and E. A. Pafford. 1981. Effects of dietary nickel on survival and growth of mallard ducklings. *Archives of Environmental Contamination and Toxicology* 10:737–745.
- Cohen, H. J., R. T. Drew, J. L. Johnson, and K. V. Rajagopalan. 1973. Molecular basis of the biological function of molybdenum: the relationship between sulfite oxidase and the acute toxicity of bisulfate and SO<sub>2</sub>. *Proceedings of the National Academy of Sciences* 70:3655–3659.
- Eastin, W. C., Jr. and T. J. O'Shea. 1981. Effects of dietary nickel on mallards. *Journal of Toxicology and Environmental Health* 7:883–892.
- Ecological Planning and Toxicology, Inc. 1999. Application for approval of Hevi-metal™ nontoxic shot: Tier 1 report. Cherry Hill, New Jersey.
- Fairchild, E. J., R. J. Lewis, and R. L. Tatken (editors). 1977. Registry of toxic effects of chemical substances, Volume II. Pages 590–592. U.S. Department of Health, Education, and Welfare Publication (NIOSH) 78–104B. 227 pages.
- Heinz, G.H. 1979. Methylmercury: Reproductive and behavioral effects on three generations of mallard ducks. *Journal of Wildlife Management* 43:394–401.
- Kabata-Pendias, A. and H. Pendias. 1984. Trace elements in soils and plants. CRC Press, Inc. Boca Raton, FL.
- Karantassis, T. 1924. On the toxicity of compounds of tungsten and molybdenum. *Annals of Medicine* 28:1541–1543.
- Kelly, M. E., S. D. Fitzgerald, R. J. Aulerich, R. J. Balandier, D. C. Powell, R. L. Stickle, W. Stevens, C. Cray, R. J. Tempelman, and S. J. Bursian. 1998. Acute effects of lead, steel, tungsten-iron and tungsten-polymer shot administered to game-farm mallards. *Journal of Wildlife Diseases* 34:673–687.
- Kinard, F. W. and J. Van de Erve. 1941. The toxicity of orally-ingested tungsten compounds in the rat. *Journal of Pharmacology and Experimental Therapeutics* 72:196–201.
- Kraebel, F. W., M. W. Miller, D. M. Getzy, and J. K. Ringleman. 1996. Effects of embedded tungsten-bismuth-tin shot and steel shot on mallards. *Journal of Wildlife Diseases* 38:1–8.
- McGhee, F., C. R. Greger, and J. R. Couch. 1965. Copper and iron toxicity. *Poultry Science* 44:310–312.
- Morck, T. A. and R. E. Austic. 1981. Iron requirements of white leghorn hens. *Poultry Science* 60:1497–1503.
- National Research Council. 1980. Mineral tolerance of domestic animals. National Research Council, National Academy of Sciences, Washington, DC.
- Nell, J. A., W. L. Bryden, G. S. Heard, and D. Balnave. 1981. Reproductive performance of laying hens fed tungsten. *Poultry Science* 60:257–258.
- Nieboer, E., R. T. Tom, and W. E. Sanford. 1988. Nickel metabolism in man and animals. Pages 91–122 in *Metal ions in biological systems*, volume 23: nickel and its role in biology. H. Sigel and A. Sigel, editors. Marcel Dekker, New York.
- Nielsen, F. H. and H. H. Sandstead. 1974. Are nickel, vanadium, silicon, fluoride, and tin essential for man? *American Journal of Clinical Nutrition* 27:515–520.
- Pham-Huu-Chanh. 1965. The comparative toxicity of sodium chromate, molybdate, tungstate, and metavanadate. *Archives Internationales de Pharmacodynamie et de Therapie* 154:243–249.
- Phatak, S. S. and V. N. Patwardhan. 1952. Toxicity of nickel. *Journal of Science and Industrial Research* 9B:70–76.
- Ringelman, J. K., M. W. Miller, and W. F. Andelt. 1993. Effects of ingested tungsten-bismuth-tin shot on captive mallards. *Journal of Wildlife Management* 57:725–732.
- Sax, N. I., and R. J. Lewis. 1989. *Dangerous Properties of Industrial Materials*. Seventh Edition, Volume II. Van Nostrand Reinhold, New York.
- Schnegg, S. and M. Kirchgessner. 1976. [Toxicity of dietary nickel]. *Landwirtsch. Forsch.* 29:177. Cited in *Chemical Abstracts* 86:101655y (1977).
- Schroeder, H. A. and M. Mitchener. 1975. Life-term studies in rats: effects of aluminum, barium, beryllium, and tungsten. *Journal of Nutrition* 105:421–427.
- Sittig, M. 1991. *Handbook of toxic and hazardous chemicals and carcinogens*. Volume II. Third edition. Noyes Publications, Park Ridge, New Jersey.
- Stokes, P. 1988. Nickel in aquatic systems. Pages 31–46 in *Metal ions in biological systems*, volume 23: nickel and its role in biology. H. Sigel and A. Sigel, editors. Marcel Dekker, New York.
- Teekel, R. A. and A. B. Watts. 1959. Tungsten supplementation of breeder hens. *Poultry Science* 38:791–794.
- U.S. Environmental Protection Agency. 1980. Ambient water quality criteria for nickel. U.S. Environmental Protection Agency, Washington, DC.
- U.S. Environmental Protection Agency. 1986. Ambient water quality criteria—nickel. USEPA Office of Water, Criteria and Standards Division, Washington, DC. EPA 440/5–86–004.
- U.S. Environmental Protection Agency. 2000. *Biosolids technology fact sheet: land application of biosolids*. U.S. Environmental Protection Agency, Office of Water, Washington, DC. EPA 832–F–00–064.

- U.S. Fish and Wildlife Service. 2004. Waterfowl population status, 2004. U.S. Fish and Wildlife Service, Washington, DC.
- Weber, C. W. and B. L. Reid. 1968. Nickel toxicity in growing chicks. *Journal of Nutrition* 95:612–616.
- Wei, H. J., X-M. Luo, and X-P. Yand. 1987. Effects of molybdenum and tungsten on mammary carcinogenesis in Sprague-Dawley (SD) rats. *Chung Hua Chung Liu Tsa Chih* 9:204–7. English abstract.

### Public Comments Solicited

Our past experience with nontoxic shot approvals has been that 30 days is sufficient time for those interested in these actions to comment. Tungsten, iron, and nickel have been reviewed for use in nontoxic shot. Therefore, we will accept comments on this proposal for a 30-day period. A longer public comment period could unnecessarily delay approval of this shot for subsequent production and use.

### NEPA Consideration

In compliance with the requirements of section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(C)), and the Council on Environmental Quality's regulation for implementing NEPA (40 CFR 1500–1508), though all of the metals in this shot type have been approved in higher concentrations in other shot types and are not likely to pose adverse toxicity effects on fish, wildlife, their habitats, or the human environment, we have prepared a Draft Environmental Assessment for this action. We will finalize the Environmental Assessment before we publish a final rule on this action.

### Endangered Species Act Considerations

Section 7 of the Endangered Species Act (ESA) of 1972, as amended (16 U.S.C. 1531 *et seq.*), provides that Federal agencies shall “insure that any action authorized, funded or carried out \* \* \* is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of (critical) habitat.” We have concluded that because all of the metals in this shot type have been approved in higher concentrations in other shot types and should not be available to biota due to use of ITN shot, this action will not affect endangered or threatened species. A Section 7 consultation under the ESA for this rule is not needed.

### Cumulative Impacts

We foresee no negative cumulative impacts from approval of this additional nontoxic shot type. Approval of an additional shot type with metals already

approved as nontoxic will not additionally impact the human environment.

### Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601 *et seq.*) requires the preparation of flexibility analyses for rules that will have a significant effect on a substantial number of small entities, which includes small businesses, organizations, or governmental jurisdictions. This rule proposes to approve an additional type of nontoxic shot that may be sold and used to hunt migratory birds; this rule would provide one shot type in addition to the types that are approved. We have determined, however, that this rule will have no effect on small entities since the approved shot merely will supplement nontoxic shot already in commerce and available throughout the retail and wholesale distribution systems. We anticipate no dislocation or other local effects, with regard to hunters and others.

### Executive Order 12866

This rule is not a significant regulatory action subject to Office of Management and Budget (OMB) review under Executive Order 12866. This rule will not have an annual economic effect of \$100 million or more or adversely affect an economic sector, productivity, jobs, the environment, or other units of government. Therefore, a cost-benefit economic analysis is not required. This action will not create inconsistencies with other agencies' actions or otherwise interfere with an action taken or planned by another agency. No other Federal agency has any role in regulating nontoxic shot for migratory bird hunting. The action is consistent with the policies and guidelines of other Department of the Interior bureaus. This action will not materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients because it has no mechanism to do so. This action will not raise novel legal or policy issues because the Service has already approved several other nontoxic shot types.

OMB makes the final determination under E.O. 12866. We invite comments on how to make this rule easier to understand, including answers to questions such as the following: (1) Are the requirements in the rule clearly stated? (2) Does the rule contain technical language or jargon that interferes with its clarity? (3) Does the format of the rule (grouping and order of sections, use of headings, paraphrasing, etc.) aid or reduce its

clarity? (4) Would the rule be easier to understand if it were divided into more (but shorter) sections? (A “section” appears in bold type and is preceded by the symbol “§” and a numbered heading; for example, “§ 20.134 Approval of nontoxic shot types.”) (5) Is the description of the rule in the SUPPLEMENTARY INFORMATION section of the preamble helpful in understanding the rule? What else could we do to make the rule easier to understand?

### Paperwork Reduction Act

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. We have examined this regulation under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501) and found it to contain no information collection requirements. OMB has approved collection of information for the nontoxic shot approval process, and has assigned control number 1018–0067, which expires on December 31, 2006, to collection of information shot manufacturers are required to provide to us for the nontoxic shot approval process. For further information see 50 CFR 20.134.

### Unfunded Mandates Reform

We have determined and certify pursuant to the Unfunded Mandates Reform Act, 2 U.S.C. 1502 *et seq.*, that this rulemaking will not impose a cost of \$100 million or more in any given year on local or State government or private entities.

### Civil Justice Reform—Executive Order 12988

We, in promulgating this rule, have determined that these regulations meet the applicable standards provided in Sections 3(a) and 3(b)(2) of Executive Order 12988.

### Takings Implication Assessment

In accordance with Executive Order 12630, this rule, authorized by the Migratory Bird Treaty Act, does not have significant takings implications and does not affect any constitutionally protected property rights. This rule will not result in the physical occupancy of property, the physical invasion of property, or the regulatory taking of any property.

### Federalism Effects

Due to the migratory nature of certain species of birds, the Federal Government has been given responsibility over these species by the Migratory Bird Treaty Act. This rule does not have a substantial direct effect

on fiscal capacity, change the roles or responsibilities of Federal or State governments, or intrude on State policy or administration. Therefore, in accordance with Executive Order 13132, this regulation does not have significant federalism effects and does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

**Government-to-Government Relationship With Tribes**

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations

with Native American Tribal Governments" (59 FR 22951) and 512 DM 2, we have determined that this rule has no effects on Federally recognized Indian tribes.

**List of Subjects in 50 CFR Part 20**

Exports, Hunting, Imports, Reporting and recordkeeping requirements, Transportation, Wildlife.

For the reasons discussed in the preamble, we propose to amend part 20, subchapter B, chapter I of title 50 of the Code of Federal Regulations as follows:

**PART 20—[AMENDED]**

1. The authority citation for part 20 continues to read as follows:

**Authority:** 16 U.S.C. 703–712; 16 U.S.C. 742a–j; Pub. L. 106–108.

2. Section 20.21 is amended by revising paragraph (j)(1) to read as follows:

**§ 20.21 What hunting methods are illegal?**

\* \* \* \* \*

(j)(1) While possessing loose shot for muzzle loading or shotshells containing other than the following approved shot types.

Approved shot type	Percent composition by weight
bismuth-tin .....	97 bismuth, 3 tin.
iron (steel) .....	iron and carbon.
iron-tungsten (2 types) .....	60 iron, 40 tungsten and 78 iron, 22 tungsten.
iron-tungsten-nickel .....	62 iron, 25 tungsten, 13 nickel.
tungsten-bronze .....	51.1 tungsten, 44.4 copper, 3.9 tin, 0.6 iron.
tungsten-matrix .....	95.9 tungsten, 4.1 polymer.
tungsten-nickel-iron .....	50 tungsten, 35 nickel, 15 iron.
tungsten-polymer .....	95.5 tungsten, 4.5 Nylon 6 or 11.
tungsten-tin-bismuth .....	49–71 tungsten, 29–51 tin; 0.5–6.5 bismuth, 0.8 iron.
tungsten-tin-iron-nickel .....	65 tungsten, 21.8 tin, 10.4 iron, 2.8 nickel.

\* \* \* \* \*

Dated: February 1, 2005.  
**Craig Manson,**  
*Assistant Secretary for Fish and Wildlife and Parks.*  
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