

ing program authorized by section 346a(p) of title 21, in accordance with the provisions of section 346a(p) of title 21, of any other substance that may be found in sources of drinking water if the Administrator determines that a substantial population may be exposed to such substance.

(July 1, 1944, ch. 373, title XIV, §1457, as added Pub. L. 104-182, title I, §136, Aug. 6, 1996, 110 Stat. 1680.)

§ 300j-18. Drinking water studies

(a) Subpopulations at greater risk

(1) In general

The Administrator shall conduct a continuing program of studies to identify groups within the general population that may be at greater risk than the general population of adverse health effects from exposure to contaminants in drinking water. The study shall examine whether and to what degree infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations that can be identified and characterized are likely to experience elevated health risks, including risks of cancer, from contaminants in drinking water.

(2) Report

Not later than 4 years after August 6, 1996, and periodically thereafter as new and significant information becomes available, the Administrator shall report to the Congress on the results of the studies.

(b) Biological mechanisms

The Administrator shall conduct biomedical studies to—

(1) understand the mechanisms by which chemical contaminants are absorbed, distributed, metabolized, and eliminated from the human body, so as to develop more accurate physiologically based models of the phenomena;

(2) understand the effects of contaminants and the mechanisms by which the contaminants cause adverse effects (especially noncancer and infectious effects) and the variations in the effects among humans, especially subpopulations at greater risk of adverse effects, and between test animals and humans; and

(3) develop new approaches to the study of complex mixtures, such as mixtures found in drinking water, especially to determine the prospects for synergistic or antagonistic interactions that may affect the shape of the dose-response relationship of the individual chemicals and microbes, and to examine noncancer endpoints and infectious diseases, and susceptible individuals and subpopulations.

(c) Studies on harmful substances in drinking water

(1) Development of studies

The Administrator shall, not later than 180 days after August 6, 1996, and after consultation with the Secretary of Health and Human Services, the Secretary of Agriculture, and, as appropriate, the heads of other Federal agencies, conduct the studies described in para-

graph (2) to support the development and implementation of the most current version of each of the following:

(A) Enhanced Surface Water Treatment Rule (59 Fed. Reg. 38832 (July 29, 1994)).

(B) Disinfectant and Disinfection Byproducts Rule (59 Fed. Reg. 38668 (July 29, 1994)).

(C) Ground Water Disinfection Rule (availability of draft summary announced at (57 Fed. Reg. 33960; July 31, 1992)).

(2) Contents of studies

The studies required by paragraph (1) shall include, at a minimum, each of the following:

(A) Toxicological studies and, if warranted, epidemiological studies to determine what levels of exposure from disinfectants and disinfection byproducts, if any, may be associated with developmental and birth defects and other potential toxic end points.

(B) Toxicological studies and, if warranted, epidemiological studies to quantify the carcinogenic potential from exposure to disinfection byproducts resulting from different disinfectants.

(C) The development of dose-response curves for pathogens, including cryptosporidium and the Norwalk virus.

(3) Authorization of appropriations

There are authorized to be appropriated to carry out this subsection \$12,500,000 for each of fiscal years 1997 through 2003.

(d) Waterborne disease occurrence study

(1) System

The Director of the Centers for Disease Control and Prevention, and the Administrator shall jointly—

(A) within 2 years after August 6, 1996, conduct pilot waterborne disease occurrence studies for at least 5 major United States communities or public water systems; and

(B) within 5 years after August 6, 1996, prepare a report on the findings of the pilot studies, and a national estimate of waterborne disease occurrence.

(2) Training and education

The Director and Administrator shall jointly establish a national health care provider training and public education campaign to inform both the professional health care provider community and the general public about waterborne disease and the symptoms that may be caused by infectious agents, including microbial contaminants. In developing such a campaign, they shall seek comment from interested groups and individuals, including scientists, physicians, State and local governments, environmental groups, public water systems, and vulnerable populations.

(3) Funding

There are authorized to be appropriated for each of the fiscal years 1997 through 2001, \$3,000,000 to carry out this subsection. To the extent funds under this subsection are not fully appropriated, the Administrator may use not more than \$2,000,000 of the funds from amounts reserved under section 300j-12(n) of this title for health effects studies for pur-

poses of this subsection. The Administrator may transfer a portion of such funds to the Centers for Disease Control and Prevention for such purposes.

(July 1, 1944, ch. 373, title XIV, §1458, as added Pub. L. 104-182, title I, §137, Aug. 6, 1996, 110 Stat. 1680.)

PUBLIC HEALTH ASSESSMENT OF EXPOSURE TO
PERCHLORATE

Pub. L. 108-136, div. A, title III, §323, Nov. 24, 2003, 117 Stat. 1440, provided that:

“(a) **EPIDEMIOLOGICAL STUDY OF EXPOSURE TO PERCHLORATE.**—The Secretary of Defense shall provide for an independent epidemiological study of exposure to perchlorate in drinking water. The entity conducting the study shall—

“(1) assess the incidence of thyroid disease and measurable effects of thyroid function in relation to exposure to perchlorate;

“(2) ensure that the study is of sufficient scope and scale to permit the making of meaningful conclusions of the measurable public health threat associated with exposure to perchlorate, especially the threat to sensitive subpopulations; and

“(3) examine thyroid function, including measurements of urinary iodine and thyroid hormone levels, in a sufficient number of pregnant women, neonates, and infants exposed to perchlorate in drinking water and match measurements of perchlorate levels in the drinking water of each study participant in order to permit the development of meaningful conclusions on the public health threat to individuals exposed to perchlorate.

“(b) **REVIEW OF EFFECTS OF PERCHLORATE ON ENDOCRINE SYSTEM.**—The Secretary shall provide for an independent review of the effects of perchlorate on the human endocrine system. The entity conducting the review shall assess—

“(1) available data on human exposure to perchlorate, including clinical data and data on exposure of sensitive subpopulations, and the levels at which health effects were observed; and

“(2) available data on other substances that have endocrine effects similar to perchlorate to which the public is frequently exposed.

“(c) **PERFORMANCE OF STUDY AND REVIEW.**—(1) The Secretary shall provide for the performance of the study under subsection (a) through the Centers for Disease Control and Prevention, the National Institutes of Health, or another Federal entity with experience in environmental toxicology selected by the Secretary.

“(2) The Secretary shall provide for the performance of the review under subsection (b) through the Centers for Disease Control and Prevention, the National Institutes of Health, or another appropriate Federal research entity with experience in human endocrinology selected by the Secretary. The Secretary shall ensure that the panel conducting the review is composed of individuals with expertise in human endocrinology.

“(d) **REPORTING REQUIREMENTS.**—Not later than June 1, 2005, the Federal entities conducting the study and review under this section shall submit to the Secretary reports containing the results of the study and review.”

§ 300j-19. Algal toxin risk assessment and management

(a) Strategic plan

(1) Development

Not later than 90 days after August 7, 2015, the Administrator shall develop and submit to Congress a strategic plan for assessing and managing risks associated with algal toxins in drinking water provided by public water systems. The strategic plan shall include steps and timelines to—

(A) evaluate the risk to human health from drinking water provided by public water systems contaminated with algal toxins;

(B) establish, publish, and update a comprehensive list of algal toxins which the Administrator determines may have an adverse effect on human health when present in drinking water provided by public water systems, taking into account likely exposure levels;

(C) summarize—

(i) the known adverse human health effects of algal toxins included on the list published under subparagraph (B) when present in drinking water provided by public water systems; and

(ii) factors that cause toxin-producing cyanobacteria and algae to proliferate and express toxins;

(D) with respect to algal toxins included on the list published under subparagraph (B), determine whether to—

(i) publish health advisories pursuant to section 300g-1(b)(1)(F) of this title for such algal toxins in drinking water provided by public water systems;

(ii) establish guidance regarding feasible analytical methods to quantify the presence of algal toxins; and

(iii) establish guidance regarding the frequency of monitoring necessary to determine if such algal toxins are present in drinking water provided by public water systems;

(E) recommend feasible treatment options, including procedures, equipment, and source water protection practices, to mitigate any adverse public health effects of algal toxins included on the list published under subparagraph (B); and

(F) enter into cooperative agreements with, and provide technical assistance to, affected States and public water systems, as identified by the Administrator, for the purpose of managing risks associated with algal toxins included on the list published under subparagraph (B).

(2) Updates

The Administrator shall, as appropriate, update and submit to Congress the strategic plan developed under paragraph (1).

(b) Information coordination

In carrying out this section the Administrator shall—

(1) identify gaps in the Agency’s understanding of algal toxins, including—

(A) the human health effects of algal toxins included on the list published under subsection (a)(1)(B); and

(B) methods and means of testing and monitoring for the presence of harmful algal toxins in source water of, or drinking water provided by, public water systems;

(2) as appropriate, consult with—

(A) other Federal agencies that—

(i) examine or analyze cyanobacteria or algal toxins; or