knowledge base needed to rescue pilots exposed to icy cold air or water or the rapid decompression associated with high-altitude bailouts. German military authorities wanted to know whether a pilot downed in the North Sea and exposed to water at a temperature of, say, ten degrees Celsius for three hours might still be alive and worth a rescue effort. Many of the most notorious experiments were designed to answer practical questions of this sort.

Germany, in effect, had two systems of occupational health and safety: one for the racially desirable and one for the racially inferior. Most of the ordinances protecting "decent healthy Germans" were formalized by law; many of the abuses suffered by "racial inferiors" were perpetrated in a legal gray area confused by the exigencies of war and the disregard for international human rights (a concept not yet well developed). For upstanding healthy German males—that is, males with full citizenship rights judged racially unimpeachable—there were in fact a number of new legal protections (see table 4.1). New laws mandated compensation for illnesses acquired at work (cancers caused by asbestos or petrochemicals, for example) and restrictions on the hours worked by youth. New laws strengthened certain kinds of protections for mothers, children, and the "unborn." Restrictions were placed on the hours that women or children could work; mothers and/or children were also barred from exposure to certain substances or processes (see table 4.2).

Much of the interest in women's occupational health focused on threats to proper reproductive or sexual function. A 1941 medical thesis, for example, explored hazards of women's work in tobacco factories, looking at things like the effect of absorbed nicotine on menstrual disorders, age of menopause, ovarian and hormonal dysfunction, and so forth.[18] Paternalistic, pro-natalist concerns were clearly at the center of many rulings in this area—especially as the fraction of women employed in the workplace grew over time.

Foreign workers, of course, rarely benefited from such safeguards. Five million foreigners were forcibly brought into Germany to make up for labor shortages caused by the war; responsibility for organizing this gigantic task was in the hands of Fritz

TABLE 4.1
Occupational Health and Safety Regulations in Germany, 1933–1945

December 16, 1936	The Third Occupational Disease Ordinance adds several new diseases to the list of compensable occupational illnesses, including asbestosis, lung cancers from work with chromate, and bladder cancer from exposure to aromatic amines.[a]
1937	A "Cancer Commission" is established by the Deutsche Gesellschaft für Arbeitsschutz under the direction of Franz Koelsch.
October 30, 1939	The "Gesetz über die Heimarbeit" regulates health and safety conditions for work performed for employers in the home ("outwork").
May 23, 1940	Smoking is banned in the entryways and waiting rooms of factories in which there is a danger of fire (involving work with explosives, flammable liquids, etc.).[b]
February 7, 1941	Work involving exposure to X-rays is barred for anyone deemed unfit for such work by a state-certified occupational physician (*Gewerbearzt*). X-ray technicians must be examined for both local and general radiologic injuries at least twice yearly. Evidence of radiation injury is to be followed up by urine and blood analysis; radium workers evidencing injuries must have a close-up X-ray taken of their lungs.
August 6, 1942	Health and safety conditions are strengthened for lacquer and varnish workers.[c]
January 29, 1943	The Fourth Occupational Disease Ordinance requires compensation for employees suffering from asbestos-related lung cancer.[d]

[a] "Dritte Verordnung über Ausdehnung der Unfallversicherung auf Berufskrankheiten. Vom 16. Dezember 1936," *Reichsgesetzblatt* 1 (1936): 1117–20.
[b] "Rauchverbot in den Aufenthaltsräumen feuergefährdeter Betriebe," *Arbeitsschutz* 3 (1942): 99.
[c] "Richtlinien für den Gesundheitsschutz bei Lackier- und Anstricharbeiten," *Arbeitsschutz* 3 (1942): 297–98.
[d] "Vierte Verordnung zur Ausdehnung der Unfallversicherung auf Berufskrankheiten. Vom 29. Januar 1943," *Arbeitsschutz* 3 (1943): 65–67.

Sauckel, Thuringia's hard-line Gauleiter and, as of March 21, 1942, Plenipotentiary for the Mobilization of Labor (and a leading anti-tobacco activist—see chapter 6). The jobs worked by many of these men, women, and children were usually difficult or dirty; most such workers were paid, but few were free to leave their place of work or move about the countryside. The philosophy behind the